# CAMPING AND CAMP OUTFITS

G·O·SHIELDS

(COQUINA)

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But books, I often find when lent
Return to me no more.

Then like a true and honest friend.
If you would gain renown,
For credit's sake the leaves keep clean,
Nor turn the corners down.

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# CAMPING AND CAMP OUTFITS.

## A MANUAL OF INSTRUCTION

FOR

## YOUNG AND OLD SPORTSMEN

BY

G. O. SHIELDS,
(COQUINA)

AUTHOR OF "CRUISINGS IN THE CASCADES," "RUSTLINGS IN THE ROCKIES," "HUNTING IN THE GREAT WEST," "THE BATTLE OF THE BIG HOLE," ETC.

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THIS BOOK CONTAINS ALSO A CHAPTER BY DR. CHARLES GILBERT DAVIS ON CAMP HYGIENE, MEDICINE, AND SURGERY; ONE BY COL. J. FRY LAWRENCE ON CAMP COOKERY; AND ONE BY FRANK F. FRISBIE ON THE DIAMOND HITCH; OR, HOW TO LOAD A PACK-HORSE.

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# PREFACE.

This book contains practical points on how to dress for hunting, fishing, or other camping trips; what to provide in the way of bedding, tents, eatables, cooking-utensils, and all kinds of camp equipage; how to select camping-grounds; how to build camps, or shelters of various kinds; how to build camp-fires; what to do in case of getting lost; and on many other topics in connection with the subject of out-door life.

The instructions given herein are based on twenty-five years' experience in camping and in the study of camp-lore and wood-craft, and it is hoped and believed that many of the hints given will prove of practical benefit to those whose opportunities in this direction have not been so favorable.

Dr. C. G. Davis, who writes the chapter on "Camp Hygiene, Medicine, and Surgery," stands at the head of his profession in Chicago, and has had an extensive experience in camp-life, so that he is a high authority on these subjects.

Col. J. Fry Lawrence is an old-timer in the woods, an expert camp cook and caterer, and no man living is better qualified to instruct men or boys in the delightful pastime of preparing the out-door meal than he.

Mr. F. F. Frisbie is a veteran mountaineer, and a careful study of his article on "Packing," with a reasonable amount of practice, will enable any intelligent man to put a load on a pack-horse so that it will stay all day, no matter how rough the trail.

G. O. S.

# CAMPING AND CAMP OUTFITS.

## CHAPTER I.

### CLOTHING AND PERSONAL EQUIPMENT.

The circumstances under which men have recourse to camp-life, even for short periods, and the localities in which they desire to camp, are so widely varied, that to treat the subject exhaustively in a single volume will require a good deal of generalization, and possibly some repetition, for which I must beg the reader's indulgence at the start. Men were campers before they were house-dwellers; but, hemmed in by brick, stone, or wooden walls for generations past, their hand has forgotten its cunning in the matter of out-door home-making. Now, when they would dwell in tents or in brush houses, even for a time, they must unlearn that which their fathers have taught them and learn that which their forefathers knew. They must learn to deny themselves many of the luxuries of so-called civilized life, and to enjoy in their stead simpler conveniences and comforts, such as may be easily transported, or may be gleaned from the wilderness wherein the camp is to be pitched.

Many persons think that to camp is to "rough it." This is not necessarily so. Camp-life may be, under favorable circumstances, the most pleasant and luxurious imaginable, and people are rapidly learning this. Every year sees large

additions to the army of tired mortals who flee from the rough-and-tumble struggle for bread, and seek refuge in the wilderness; who take up their abode for a season in tents in the woods, in the mountains, by the lake-side, or on the river bank. Men are rapidly learning that camp-life is not so rough that only they can endure it, but that it is so smooth, so calm, so restful, so luxurious, that their wives and little ones can likewise endure it, nay, enjoy it, and they are invited to join the husband and father in his sylvan retreat. More people are learning every year that the fashionable summer resorts, where they must live in hotels or boarding-houses, hampered by strict rules of etiquette, and dressed in the height of fashion, are not the best places to rest, but that perfect rest can only be had in their own little tent, where they can feel free to wear what is most comfortable, to come and go when they will, to eat and sleep and wake as they will. They are learning that velvet carpets, richly upholstered furniture, cut-glass, and plate are not essential to happiness, but that perfect happiness and perfect rest are found where there is least conventionality. Thus, I say, are men, women, and children coming to love a camp in the country as a place to spend their summer vacations; and more of them will learn it each year, as the world grows older and wiser.

Then, besides those who camp merely for rest and recreation, or while pursuing some branch of sport, are the thousands who must depend on it, for at least a portion of the time, while pursuing

their regular vocations. Loggers, raftsmen, surveyors, cow-boys, prospectors, miners, timber estimators, and many others are often led by their work beyond the settlements—must live, for the time, in tents or temporary cabins, and on such food as can be carried with them or obtained in the wilderness. Many persons who for the first time enter upon camp-life, either from choice or from force of circumstances, wish for a teacher—for some good friend to direct them how best to adapt themselves to their new surroundings, and to render available such supplies and equipments as they have at hand.

An experience of twenty-five years in camp-life, and in the study of camp-lore, leads me to hope that I may be able to give such practical hints and instruction on this subject as may be valuable to all such; and with this object in view, these pages are written.

Before camping, comes the preparation for camping. The first and most important question on this point is what to wear. To start with, let your maxim be, *all wool*. Not a thread of cotton should be worn, at least next to the skin, winter or summer, at home or abroad. I am aware that many persons, who think they know, will disagree with me on this point; but most of these have not tried the woolen system long, or, if they have, have not tried it long enough to become accustomed to it. Many persons say they can not wear wool next the skin in summer, because it causes an itching that is unbearable; but if they will exercise a reasonable amount of

perseverance, and exert a creditable will-power, they will find that the skin soon becomes accustomed to the woolen garment; that the itching subsides; that the ensuing sensation is one of the most solid comfort imaginable.

I have arrived at this conclusion after many years of experience, during which I have hunted, fished, and camped from Canada to Texas, and from British Columbia to Florida, some of my outings, in various States and Territories, having been in mid-summer, others in mid-winter, others in spring, others in autumn.

Within this time I have tried all the varieties of linen, cotton, silk, and pine-bark underwear that I could find, and have settled down to wool as the only proper underclothing, for all countries and for all times of year; and in this conclusion I am supported by most other men who have experimented thus widely.

Nearly all thoroughly posted frontiersmen, army officers, professional fishermen and hunters, loggers, and the more thoughtful farmers, east, west, north, and south, now wear woolen underclothing winter and summer. Even in India, directly under the equator, English army officers have adopted wool as the most comfortable material for underwear that they can find.

It is cooler in summer, warmer in winter, and dries quicker when wet than cotton, linen, or silk. When wet it does not give that chilling sensation, when it touches the skin, that is felt from either of the other materials; and a man may get wet in it a dozen times, and suffer less from colds or

rheumatism than if he gets wet once in cotton garments. Log-drivers, in the pineries, wear woolens exclusively, and are often in the water from morning till night, yet it is a rare thing for one of them to have a cold or a case of rheumatism. I have not worn a linen or a cotton shirt, at home or abroad, for years past, and I never knew how to enjoy hot weather until since I discarded those delusive garments. I have argued thus at length, on this point, because it is an important one, and because I want my friends to be comfortable and healthy.

Select, then, for your summer outing, light-weight woolen underwear, including socks of the finest quality of wool, and outside shirts of heavier material, of any color you fancy. The modern yachting or tennis shirts are good for summer, but for hunting-trips, in autumn or winter, get heavy navy shirts. Both under and over shirts should be doubled on breast and back. For an autumn or winter trip, get heavy-weight underwear. For a jaunt of ten days to two months, two suits of underwear, two outside shirts, and six pairs of socks are plenty. You can wash them, or have them washed, in camp, and there is no need of burdening yourself with more suits. The outside shirts should have wide collars, which, in chilly weather, may be turned up, and a scarf tied around the neck outside of them, adding greatly to the comfort of the wearer. A coat, pants, and vest of almost any woolen goods may be worn—an old cast-off business suit is just the thing; but plenty of pockets are essential, and

it is well to have two large inside pockets made in the skirt of the coat, which will be found convenient for carrying a lunch, a pair of dry socks, your reel, or other bulky property. Corduroy or velveteen suits are a delusion. They are nobby, but do not add to your comfort, and they subject you to the ridicule of the country bumps, especially if you fail to catch fish or kill game. A pair of canvas overalls and a canvas blouse or hunting-coat are good, as a protection against brush and briers, and as an additional protection against rain and cold winds. Many sportsmen discard vests as useless, but most old-timers wear them for the pockets they contain, if for nothing else. These are useful for your watch, money, toothpicks, and various other small properties that can not well be carried in your coat or trousers pockets.

In summer a rubber coat should be carried, and in fall and winter a mackintosh is better. This goods consists of two sheets of light, firmly woven woolen cloth, with a sheet of gum between, pressed together between heavy rollers, so that the gum is driven into the fiber of both sheets of cloth. It is absolutely water-proof and wind-proof; is light, strong, and durable, and is neat enough to wear in the city as well as in the woods. For outing purposes, the coat should not be made with cape, but should have two large inside pockets. It should be made long enough to reach nearly to your heels. This will add to its value for riding, and then at night it will be found useful to spread down, either

over or under your bed, as a protection against both cold and dampness.

A heavy, bulky overcoat should not be taken on an outing, unless you are to travel by team in extremely cold weather. Under any other circumstances, it is a useless burden. If the weather grows cold enough to require it, put on an extra flannel shirt. It will protect you from the cold as well as a twenty-pound overcoat, and is not so much in the way when not needed. In extremely cold weather you can wear two or three of these, if they are made large. The cow-boys designate different stages of cold as "two-shirt weather," "three-shirt weather," etc., but "overcoat weather" is seldom heard of among them, even in North Dakota or Montana. If you are to sleep in blankets, a long flannel night-shirt, long enough to come below your feet, will add to your comfort; but if you are to use a sleeping-bag, this will not be needed, and will interfere with the freedom of your movements in turning over, etc. In either case, it is best to take off all your clothing at night but your undershirt and drawers. The old hunter's plan of sleeping in trousers, vest, and even coat, is not a good one. This subject of bedding will be discussed in a subsequent chapter.

About the best head-gear, for winter or summer, and for any climate on this continent, is a medium weight, light-colored felt hat, of good quality and with medium width brim; the styles known to the trade as the Sheridan or half planter being well adapted to the purpose. This withstands all

kinds of weather, can be rolled up and stuck into a war-bag or valise, and is an adequate protection against rain or the rays of the sun. If you expect to encounter severe cold weather, carry a pair of ear-muffs.

The broad-brimmed, heavy-weight cow-boy hat, of the exaggerated type, is not popular among modest men.

For mid-winter work, a silk or worsted skull-cap should be carried along, and for winter work, in high northern latitudes, a thick knitted woolen cap, large enough to come well down over the ears and neck, is desirable; but never wear a fur cap for hunting, if you value your hair or your health. If you do, your head will get hot when you are walking, the perspiration will run down your neck, you will take off your cap to get relief, and will get a cold in your head that will last you a month.

As to foot-gear, there is a great diversity of opinion among sportsmen. No boot or shoe has ever been made that was perfect in every particular for hunting and fishing. Rubber and leather are subject to objections under certain conditions. It may be generally said that no leather boot or shoe is suitable for walking in the woods in wet weather, in snow, or for wading.

The so-called water-proof leather is not water-proof. It gets wet through in time; then when it dries it is hard. None of the so-called water-proofing mixtures will render leather absolutely water-proof. They will make it turn water for a time; but if you treat your boots with it, and then wade in them, or walk in wet snow or grass

for a long time, it will give way, and the leather will wet through.

As good an article as any extant, for general use in fishing and hunting, aside from wading, is a medium weight leather walking-shoe. It should be made to fit the foot, and have a broad, heavy sole and a low, broad heel. In this, one may walk comfortably all day.

You may be compelled to wade a creek or swamp, and so get your feet wet occasionally, but if you wear thick woolen socks, this does not so much matter. You will not take cold, your feet will be more comfortable, and you less tired at night, than if you had worn a pair of heavy leather boots.

For wading, for walking in rainy weather, or for hunting in snow, nothing better has yet been devised than the Hannaford ventilated hip rubber boot, with rubber inside as well as outside—without felt or flannel lining. If this gets wet inside, either from perspiration or from getting beyond your depth in water, take it off, pour out the water, and in a few minutes it is dry inside, and your socks and trousers are not dyed red, green, or blue, as they would most likely be if the boot were lined with felt of either color.

When the hip or upper portion of the leg of the boot is not needed, turn it down to the foot; then turn it, and bring the upper end up to the top of the stiff portion of the boot-leg. The lower edge of the fold will now be midway between the knee and the foot. Give this two turns upward, and you have the surplus material neatly reefed

in just below the knee, where it will stay all day if desired, and give little trouble by catching on brush or other obstructions.

Felt boots are a favorite with lumbermen for winter wear, and, with rubber shoes over them, make a comfortable foot-gear. The only objection to them for hunting is, that in this occupation, even in winter, one often has to cross open streams of water, and the felt boots are useless for wading.

Rubber wading-trousers and wading-stockings are good in cases where there is little or no walking to do on dry land; but if there be, they then make the wearer uncomfortable, because of the lack of proper ventilation. After walking a few hundred yards in them, either in woods or through fields, in hot weather (and the weather is usually hot when men go trouting), you will become so hot that you will wish you had never seen them, and that you had worn simply a pair of rubber boots. If the depth of water be too great for these, I prefer to wear a pair of old leather shoes, and to get wet; for if one be dressed wholly in woolen, as already recommended, there is usually little danger of any serious results from getting wet.

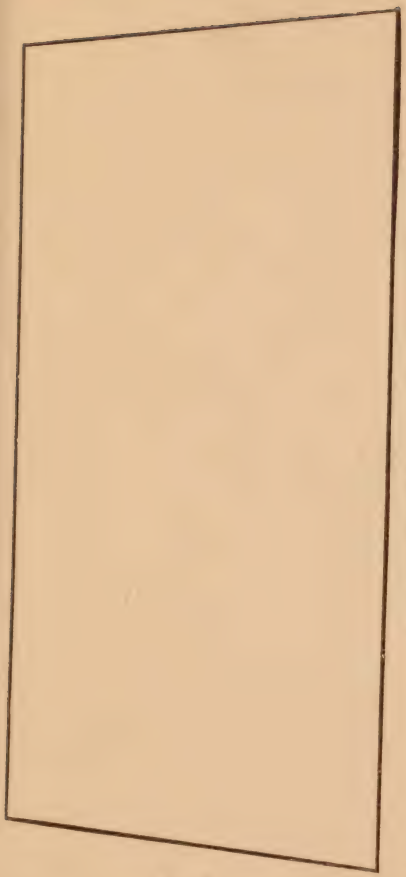
For dry weather, and dry land, winter or summer, in the woods, in the mountains, or on the plains, the most comfortable and serviceable of all foot-gear is a heavy buckskin moccasin. The white man has never been able to excel the native Indian in this one matter. The moccasin is the most natural, rational, perfect piece of foot-wear ever worn by human beings. Not even the old

Greek sandal was so perfect, for it protected only the sole of the foot, while the moccasin protects the whole of it, and in so graceful and grateful a manner that any man who puts on a pair of them for the first time feels like calling down the blessings of heaven on the soul of the ancient red man, whoever he was, that invented them.

When a man whose feet have been cased up in tight-fitting leather boots or shoes, with heavy, awkward, cumbersome soles, and unnatural and ungraceful heels on them, to obstruct his movements at every step, gets out into the woods, and puts on a pair of moccasins for the first time, he feels like the school-boy who has been shut up within brick walls for six months with his books, and is turned out on his uncle's farm for his summer vacation; he feels like a race-horse that has been stabled through a long winter, and in the spring is turned out in a field of green clover; he feels like a bird-dog that has been housed up in his city kennel all summer, and, in the cool, bright autumn days, is turned loose in the country among the quails or prairie chickens. When a man, I say, whose feet have been pinched and whose corns have been cultivated with leather boots or shoes for years, gets out and gets his first pair of moccasins on, he wants to run, leap, sing, dance, shout, whistle—he wants to do anything that will give vent to his joyous feelings. He would shake hands then with his worst enemy, if he were there, and slap him on the back; he would buy his wife a seal-skin sack; he would hug his grandmother.

However, there are many sportsmen who imagine they would not like moccasins, and some few who have tried them and are sure they don't like them; but those who have worn them most like them best. For fall or winter hunting, they should be made large enough to admit of two pairs of socks being worn; and if rocks hurt the bottoms of your feet, put a pair of sole-leather insoles in your moccasins. If the cords in the calves of your legs get sore from walking, this is not the fault of the moccasins; it is the fault of the useless and unnatural high heels you have been wearing on your boots or shoes, and it will pass away after a day or two. Then you will find that you can walk all day in moccasins, and be less tired at night than if you had walked two hours in any other foot-gear. You will find that you can move more quietly than in any other boot or shoe; that you suffer less from cold feet, and that the buckskin clings to rocks and logs better than rubber or leather. Even if you don't wear moccasins, you should have a pair with you on every camping-trip, to put on at night when you come in from your day's tramp. You will find them restful and refreshing—an excellent camp-slipper. Don't depend on buying them from the Indians, or even of Indian make. The squaws have not the mechanical skill nor the appliances that white men have; and, though they can design moccasins, they can not make them properly.

The accompanying diagram will enable any glovemaker or shoemaker to make moccasins,



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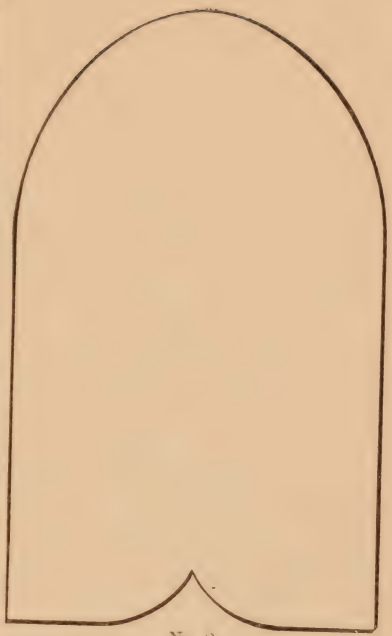

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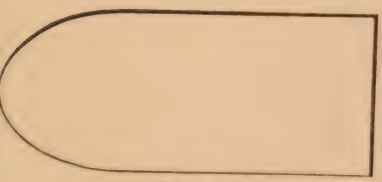

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whether he has ever before done so or not. The feet should be made of the heaviest buckskin that can be obtained, or, better still, of elk or moose skin. The leg may be made of light buckskin, and should extend half-way to the knee.

The seams should all be sewed by hand with heavy waxed-ends. After the moccasin is completed, pierce the tongue, well down on the instep, and pass a buckskin lace, three feet in length, half-way through the tongue, in the same manner as you would begin to lace up a shoe; then pass the right-hand end of the lace through a hole in the left-hand flap of the leg, at the lower edge and well back toward the side of the ankle. Now take the left-hand end of the lace and pass it through a hole in the right-hand flap, in a position directly opposite to that on the left side. Now wrap the leg of the moccasin tightly around your ankle, outside of your trousers-leg, and taking an end of the lace in either hand, proceed to wrap it back and forth around your leg, crossing the two ends alternately in front and behind, each wrap rising above the other, until you reach the top of the moccasin-leg. Now tie your laces, and poke the ends down inside the moccasin-leg, and your feet are dressed for an all-day's tramp.

If you wear leather shoes, you will need, in addition, for walking in the woods, or even in open country, a pair of leggings. I have never seen a pair of these in any store that I liked, and so devised an improvement on existing styles. My brother sportsmen are welcome to the scheme, if any of them wish to use it. I bought a pair of

ordinary brown canvas leggings, that were made to buckle on the inside. I cut off the straps and buckles, and sewed on, at one side of the opening, a flap half an inch wide, in such a position that when the legging was wrapped tightly around my leg, one edge overlapping the other about two inches, this flap would nearly meet the outer edge. Then I put eyelets in this flap and in the opposite edge of the legging. Now I take two long shoe-laces, splice them, and lace up the legging as I would a shoe, and have a leg-gear that fits, sets easy, that has no hooks or buckles to catch in brush or grass, and which consequently saves much of the mental strain that is inflicted on the wearer by any of the other styles in the market.

Buckskin gloves are about the best for all-round work, except for wet weather, when a pair of rubber gloves will add greatly to your comfort. For hunting in extremely cold weather, a heavy, loose yarn mitten that you can pull on over your buckskin glove is invaluable. Fur gloves or mittens are not recommended, except for the Arctic regions, as they cause the hands to perspire, and then, when it becomes necessary to take them off, even for a minute, the hands are liable to freeze.

Snow-shoes are necessary for winter hunting, either in the north woods or the mountains. Those made by weaving rawhide thongs on a wooden bow are best. They can usually be bought in the settlement or town near where you are to enter the hunting country.

Much that I have said as to the proper outing-dress of men, will apply with equal force to that

of ladies. Such portion of it as does not, they have, of course, skipped. Let me advise them, also, to adopt the woolen scheme throughout. The dress should be of dark flannel, and should fit loosely at the waist.

No lady should ever wear a corset into camp. They are bad enough at home; leave them off when you go out for a rest. In fact, they are doomed to go out of style shortly, even as bustles have lately gone. Women are becoming too practical to much longer tolerate such an impractical, nonsensical piece of furniture as a corset. A pretty girl, clad in a loose-fitting, comfortable lawn-tennis suit looks sweet enough to hug, but laced up in a corset and a tight-waisted dress, she is only pretty enough to feel sorry for.

Leave your tight-fitting, high-heeled shoes at home, too. Get a pair of coarse, loose-fitting, low-heeled shoes, and, if you intend to do much walking in wet weather, a pair of knee rubber boots. If the children are to go along, dress them on this same practical, common-sense plan, and all will be well.

And now that you have made up your list of wearing apparel, you want something in which to carry that part of it that you do not put on at the start. The simplest, and one of the most serviceable, articles for this purpose is an ordinary seamless grain-bag. It costs 25 cents, and is more popular among loggers, freighters, cow-boys, miners, and other professional rustlers, than any other "trunk" in the market. In such circles, it is universally known as a "war-bag." Into it

go boots, shoes, clothing, grub, rope, tools, or anything that can not be readily placed or carried somewhere else. It is always ready, and there is always room in it for something else. The only objection to it is, that the thing you want to get out is always at the bottom of it; but it is the work of only a minute or two to dump the whole blooming outfit on the earth, get what you want, and stow the rest away again. You can jam the war-bag into the bow of a boat or a stray corner of a wagon-box, or stow it on top of a high load, where a valise or trunk would not ride half so safely, and can knock it about at will with no danger of injuring it. Train baggagemen may fire it from one end of a car to the other, or from the car to the other side of the station platform, in vain. It is proof against their heathenish instincts of destruction, and they invariably sigh when they see it coming, because they know they can't "bust" it. You can cinch it onto a cayuse or a mule, tight enough to ride all day, without smashing it; and it stands jamming against trees, where a valise or trunk would soon come to grief. You can have the bag made by a tent-maker if you wish, of heavy duck-canvas; and a coat of water-proof paint will add to its good qualities.

There is a "sportsman's clothing-bag," made of rubber or mackintosh, that is thoroughly water-proof. It is an excellent thing in case your outfit is caught out in the rain, or in case your boat capsizes when your worldly effects are on board.

If, however, you are to travel all the way by rail or team, and especially if your wife is to accompany you, it may be as well to have a trunk; but this should be as small as will possibly hold your wardrobe and small accoutrements; should be covered with sole-leather or rawhide, and should be well ironed. A small, flat trunk may be carried on a pack-animal, but it is a cruelty to the poor brute to put such a thing on him, and is a source of constant anxiety and annoyance to its owner and to the packer.

A valuable toilet-case is made of two pieces of drilling thirty-six inches long, one nine inches wide, the other eighteen. The wider one is cut square at one end, and tapered to a point at the other. The narrow strip is now laid through the center of the wide one, sewed across each end and along one edge, being held full, so as to shorten it to the length of the wide part of the larger strip. Now divide the space into a series of pockets, varying in width from one to six inches, by running seams through both thicknesses of the cloth. Now attach a yard of tape to the pointed end of the outer strip of cloth, bind or hem the exposed edges of the goods, and you have a catch-all in which you may carry your soap, towel, comb, hair-brush, tooth-brush, needles, thread, bachelor buttons, and various other small articles that would get lost anywhere else.

If going into the woods or mountains in summer, you will require a lotion to keep off mosquitoes and flies. Many preparations are sold for this purpose, all of which have more or less merit; but

the objection to them is that they evaporate rapidly, and have to be renewed every half-hour. I have tried nearly all of them; but the best preparation I have ever found for the purpose is made as follows: To three ounces of pine tar add two ounces of castor-oil and one ounce of oil of penny-royal. This mixture has a good body, an odor like that of a tan-yard, and can be relied on to cure any case of mosquitoes this side of New Jersey.

One good thorough application of it will usually last three or four hours, and when it gets so thin that the birds begin to bite through it, the victim must paint himself again. It is a heroic kind of treatment—that is, it takes a hero to endure it—but is not half so bad as the mosquitoes, and if you are having plenty of fun, or think you are going to have plenty of it this afternoon or to-morrow, you soon forget all about the smell. The muzzles that are made of mosquito-netting, and intended to be worn over your head, are a failure. I have tried them, and I unanimously pronounce them a failure.

Several times, while wearing one, I wanted to spit, and forgot that I was muzzled until I had gotten myself in a most uncomfortable predicament. When I wanted to eat or drink I had to take the dingus off, and then the mosquitoes crawled down my spine and chewed me. Finally, while wading a trout-stream, an overhanging limb caught it, tore it off, and flipped it over into Wyoming. Then I took out the bottle of tar and painted myself, and I have indulged in that luxury ever since when bucking against mosquitoes or any of their relatives.

## CHAPTER II.

### BEDDING.

Too much care can not be given to the subject of bedding. Next to that of a good suit of clothing, it is the most important part of a camp outfit; and yet there are hundreds of sportsmen who do not appreciate this fact. Besides, they like to affect the ways of the native, and show their companions that they can rough it in true aboriginal style. This is all well enough in spirit, and, if you go into the woods or mountains on a long jaunt, you will have plenty of opportunities to show your mettle in more worthy and less injurious ways than by sleeping on the hard ground with insufficient bedding.

We frequently see old-timers, in the Far West, miners, hunters, cow-boys, etc., go on the trail with only half the bedding they need, simply because they are too lazy to provide or to carry a full supply; but this short-sighted course is sure to tell on them in the end.

As I have before had occasion to say, I would rather get into a good, warm, dry, soft bed at night, without my supper, than sit at a feast, and then sleep on the hard ground, without covering enough to keep me warm. After a hard day's work, tramping, rowing, or whatever it may be, a good bed is absolutely necessary to prepare one

for the labor and fatigue of the following day. Any able-bodied man may endure a few nights of cold, comfortless sleep, but it will tell on him sooner or later; while, if he sleep soundly, and eat heartily, he may endure an incredible amount of labor, and hardship of other kinds. You may tramp all day with your feet wet, all your clothing wet, if need be, without injury to yourself, but be sure you crawl into a good, warm, soft, dry bed at night. Your old-timer, white or red, who takes one blanket, his rifle, a bag of crackers, and a little salt, goes into the woods or mountains and subsists for days, weeks, or months on Nature's resources, is proverbially a short-lived man. He looks and feels older than he is; his age is racked with rheumatic pains, and he dies twenty years sooner than he would have done had he taken care of himself.

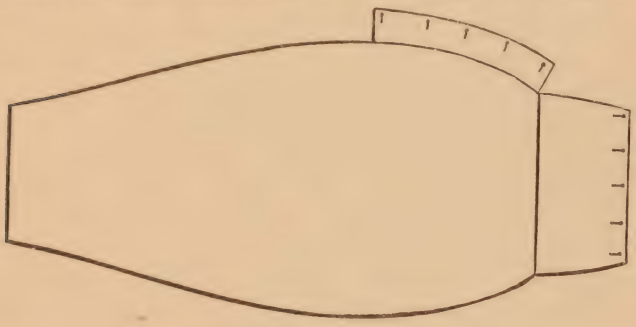
Blankets are the staple article of camp-bedding, and you should never go into camp with less than two pairs of good heavy ones to each man, no matter where you go or at what time of year. If you go late in the fall, take three pairs; if in the winter, increase the number to four.

But the boss camp-bed for all times and all climes, after all tramps and all climbs, especially if you are to sleep alone, is a sleeping-bag. I have used one of these for many years, in all my outings, and have learned to prize it so highly that I would as soon think of going to the woods without my rifle or rod as without my sleeping-bag.

The following description, copied from my "Cruisings in the Cascades," is reprinted here

for the benefit of those who may not have seen it there:

"The outer bag is made of heavy, brown, waterproof canvas, six feet long, three feet wide in the center, tapered to two feet at the head and sixteen inches at the foot. Above the head of the bag proper, flaps project a foot farther, with which the occupant's head may be completely covered, if desired. These are provided with buttons and button-holes, so that they may be buttoned clear across, for stormy or very cold



Sleeping-bag.

weather. The bag is left open, from the head down one edge, two feet, and a flap is provided to lap over this opening. Buttons are sewed on the bag, and there are button-holes in the flaps, so it may also be buttoned up tightly. Inside of this canvas bag is another of the same size and shape, less the head-flaps. This is made of lambskin with the wool on, and is lined with ordinary sheeting, to keep the wool from coming in direct contact with the person or clothing. One or more pairs of blankets may be folded and inserted in this, as may be necessary, for any temperature in

which it is to be used; and with one good heavy blanket so inserted, the whole business weighs but eighteen pounds.

"If the weather is warm, so that not all this covering is needed over the sleeper, he may shift it to suit the weather and his taste, crawling in on top of as much of it as he may wish; and the less he has over him the more he will have under him, and the softer will be his bed. Besides being water-proof, the canvas is wind-proof, and one can button himself up in this house, leaving only an air-hole at the end of his nose, and sleep as soundly, and almost as comfortably, in a snow-drift on the prairie as in a tent or house. In short, he may be absolutely at home, and comfortable, wherever night finds him, and no matter what horrid nightmares he may have, he can not roll out of bed or kick off the covers.

"Nor will he catch a draft of cold air along the north edge of his spine every time he turns over, as he is liable to do when sleeping in blankets. Nor will his feet crawl out from under the cover and catch chilblains, as they are liable to do in the old-fashioned way. In fact, this sleeping-bag is one of the greatest luxuries I ever took into camp, and if any brother sportsman wants one, and can not find an architect in his neighborhood capable of building it, let him write me, and I will tell him where mine was made."

Good cot beds are now made for camp use that fold up into a small package, are light, but strong and durable. One of the best I have ever seen is that made by R. B. Lang, of Racine, Wis. I dis-

like to indulge in free advertising, but deem it my duty to state, in such a work as this, where desirable articles may be had. The cot in question measures, when set up, 6 feet 2 inches by 2 feet 4 inches, and folds into a package 4 x 5 inches by 3 feet long. It weighs fourteen pounds. Mr. Lang also makes folding camp-chairs and tables that are desirable when it is possible to carry such articles of furniture.

A good camp-cot may also be made in this way: Take a piece of good, heavy duck-canvas, about six inches longer than yourself and forty inches wide; run a hem six inches wide along either side, double seaming it on a machine with the heaviest thread it will carry. Then, when you get into camp, take two poles about three inches in diameter and a foot longer than your canvas; run them through the hems or loops, and lay the ends in four good strong forks, driven in the ground for the purpose. Or you may lay them on two logs, and brace them apart with two other poles cut to the proper length to stretch your canvas tightly. Now spread your blankets or your sleeping-bag on this. Your side-poles will spring with your weight, and you will have a bed that, after a hard day's tramp, you will enjoy more than you do your hair mattress and woven wire spring-bed at home. If you have plenty of transportation, and do not take a canvas cot, take a cotton or wool mattress along. It need not be more than two feet wide and three inches thick. The weight is insignificant; the only question is that of room, and it will add greatly to your comfort.

If you have not room for a mattress, an empty bed-tick is a good thing to take along. It only weighs a couple of pounds, and you will often find opportunities to fill it with straw, hay, or even with green grass, weeds, or "browse," any of which makes a better bed than mother earth. One way to provide for a warm sleep, on an extremely cold night, is to build a big log fire, let it burn several hours, then pull it away and make your bed where the fire was. The earth is thoroughly heated, and by covering up the site and preventing, in a measure at least, the escape of the heat, it will keep hot all night, and you sleep as warm as if in a feather bed at home.

A good soft pillow is also essential to a sound night's sleep. It costs but a trifle, weighs about the same, and takes up but little room. It may be loaded with either curled hair or feathers, the latter being generally preferable. If you are traveling with a small pack-train, where every inch of room and every ounce of weight must be counted, a good substitute for a civilized pillow is made by placing a couple of your extra suits of underwear or a couple of your outside woolen shirts in a flour-sack. They should be folded carefully, and laid in smooth, so as to contain no lumps or wrinkles, and in this way make a fair pillow for a tired man. When it becomes necessary to wear them, you wash your others, and put them in the bag in place of those you have taken out. The rubber air-pillow is not recommended. True, it is not so bulky as a feather pillow, but is fully as heavy, and is not

so comfortable to sleep on. I have tried pretty much everything in the way of camp furniture, for a pillow, from a postage-stamp to a bag of rocks, but there is nothing in the whole list that equals a good soft wad of "goose hair."

A rubber blanket is a good thing to spread on the ground, under your bed, if you sleep on the ground, or to spread over your canvas cot, if you have one. It prevents dampness or cold from coming from the ground into your bedding. It will also be useful to roll your bedding in while traveling, to protect it from rain or dust.

Two or three sheets of water-proof canvas, four feet wide and eight feet long, are useful in camp in various ways. One of them should be spread over your bed. It is a good protection against cold winds and against rain, if you have to camp without a tent, as is sometimes necessary. Others are useful for covering up saddles and other property in camp, and to spread over the packs while traveling.

For winter camping, in cold climates, a buffalo-robe is useful, but under any other circumstances is an unnecessary incumbrance.

If you have not a canvas cot or a mattress, always procure pine, hemlock, fir, or cedar boughs for a foundation for your bed, if in a country where they can be had; if not, then brush of almost any kind is better than the hard ground. If these can not be had, get hay, straw, rushes, grass, or weeds—anything that will have some elasticity and relieve the solid monotony of mother earth. Remember that a good bed makes

a short night, and *vice versa.* You had better work till 10 o'clock making your bed than turn into a hard one at dark, and then groan with tired hip-joints from midnight till daylight.

Some hunters condemn boughs as useless, and say they soon pack and become as hard as the ground itself.

This is because they don't put down enough of them. I always lay them from a foot to two feet deep, and am careful to have no large limbs among them. In this way I have a bed that will give with every movement of my body, and that remains soft all night, or a dozen nights in succession.

Never sleep with your head covered, no matter what kind of a bed you have.

For summer camping, a hammock is a great luxury, and, if there are ladies or children in the party, it is almost a necessity. It is only good to lounge in, however, not to sleep in, though it is used for this purpose in hot countries, where snakes and poisonous insects abound. For light traveling in our northern and western fish and game regions, it is not essential.

## CHAPTER III.

### CAMP EQUIPAGE.

The first and most important article in this line to be considered in planning an outing, is the tent. The size and style of this must be governed, in a great measure, by the number of persons to occupy it, and the kind and quantity of transportation with which the party is to be provided.

If four men are going together, and have a wagon, a large boat, and no portages to make, or if they are to travel with packs, and have plenty of them, then a wall-tent, 8x10 or 8x12 feet, may be taken. In making up for the pack or boat outfit, the tent-poles should be jointed, the various joints to be not more than three feet long. This is done by means of wrought-iron strap hinges on one side, and two staples or strap-iron loops, one above and one below the cut, on the opposite side from the hinge, with a half-inch round iron pin to pass from one to the other.

For a larger party, of course a larger tent is necessary, and when it is possible to carry it, a Sibley tent, such as is now used by the United States army, is an excellent thing.

But better than either is a round tent, after the style of the Indian tepee. Mine is eight feet in diameter on the ground, and eight feet high,

tapered to nearly a point at the top, and having an opening there eighteen inches in diameter. One of the seams is split from the ground four feet up, has flaps on either side, and strings attached with which to lace it up; this forms the door. It has loops at intervals of two feet all round the ground-line, and a half-inch rope is rove into the edge of the canvas round top opening. It is made of a light-weight, firmly woven drilling, weighs only eight pounds, and affords ample sleeping-room for two men, and storage-room for all their baggage. It is mounted on four or six poles (the latter number is best) ten feet long, which are cut wherever night overtakes us.

These are tied together six inches from the top ends, the ends slipped through the top opening of the tent; they are then set up, and the butt-ends spread so as to form a perfect square if there be but four poles, or a hexagon if there be six. The tent is now pinned down tightly, and is ready to live in. Jointed poles, or even solid ones, may also be carried for this if traveling in a prairie country, but if in the mountains or any timbered country, it is the work of but a few minutes to cut them; and this plan saves the carrying of twenty-five to fifty pounds dead weight. This style of tent may be made of almost any desired size, up to a capacity of eight or ten men. I have seen them in Indian camps fourteen or fifteen feet in diameter, of the same height, sheltering two or three good-sized families. The strong point in favor of this style of tent is that you can make a fire in it.

Mr. Orin Belknap, better known to readers of the sportsmen's papers as "Uncle Fuller," thus describes a tent, and the manner of heating it, devised by him: *

"It is circular, eight feet in diameter, and not over eight feet high. The walls rise perpendicularly for three feet (one breadth of the eight-ounce canvas), and slope up from these to the wooden hoop, two feet in diameter, at the top. The hoop is upheld by three ropes, each about two feet long, fastened equi-distant round the hoop. These ropes join at the top, and a single rope runs from them up to the point of intersection of the pole tripod which upholds the whole affair.

"The plan for keeping an open fire in an eight-foot tent, scarcely higher than one's head, was the difficult nut to crack, and not until many nights and mornings of suffering in the intense cold had sharpened my dull wits did I hit upon the following successful plan:

"A trench, six inches wide and deep, was dug in a straight line through the center of the tent, with the ends opening on the outside of the tent. A cross-trench, of the same size, was dug in the center of the tent, two feet long. Short pieces of boards (or bark) were used to cover the trench on either side of the center, leaving the main and cross-trenches open in the center for a space of about two feet. Over the intersection of these

* He had modestly given it the name of a certain well-known cooking-range, but deeming it only proper that he should be so honored, I have taken the liberty of rechristening it the "Belknap Toaster."

trenches a raised platform, eighteen inches square, was built by laying two split sticks of green wood, four inches in diameter, across the short trench, one on each side of the long trench, and on this a piece of heavy sheet-iron, eighteen inches square, was laid, and the thing was done.

"The theory was that the fire, built of small sticks on the top of the sheet-iron, must, of course, have air. The tent being closed tightly (the tighter the better), fresh air to supply draft for the fire must come through the long trench, whose open ends extended outside the tent. As the fire was raised four inches above the top of the trench, of course the current of air coming into the fire was deflected upward before reaching it. This current of air, on four sides of the fire, sent the smoke up the 'cat-hole' in the roof 'jest a flukin'. The air was closely confined in the trench until reaching the fire, and consequently chilled no one. Just such quantity as the fire required came, and no more. Talk about comfort!

"The evening passed mid scenes of jollity. Songs and stories were exchanged by the crackling and blazing fire till a late hour, when the hunters retired, and slept like babies. Morning found them wrapped in their blankets, with the icy breath covering the north end of them with frost. Did the fireman crawl out in the cold and monkey with the remains of a deceased camp-fire in front of his tent? Not muchly! The shavings, the splinters, and the dry bark lay by his side, and striking a match under cover, he exposed just one arm in placing the kindlings on the range, and

touching them off, in two short minutes thereafter he sat up in his dude night-shirt (the same one he wore yesterday after deer), and hove a double-barreled sigh for the poor stiffs, named Dennis, who never heard of this novel range."

The whole affair has been made with an ax. Of course the door of the tent is small, and we crawl into it on our knees, and remain seated while inside, to be below the smoke; but in that magic circle mirth and jollity reigned supreme, and I verily believe that no other piece of canvas of its size ever covered near so much square fun as was crowded into that old tepee.

"Well, the years speed on, and we're growing gray,
Yet many a time, ere we pass away,
May we hope to meet in that mountain cloister,
And the peace-pipe smoke round the Belknap Toaster."

The poles for this tent may be made of large sticks of bamboo, jointed as fishing-rods are jointed. Each pole should be fifteen feet long, and cut into five pieces. A big, roaring, open camp-fire is a necessary concomitant of a jolly camp in fair weather; but there are times when such a fire can not be maintained, owing to scarcity of fuel or wet weather, and there are other times when you can not stand round it comfortably, even if it do burn. I mean when it rains, or when the temperature is so low that your back chills while your face burns, and for such times you need a fire inside your tent. It is one of the most enjoyable features of camp-life, when, after a day's tramp in the rain or snow, when your clothing is wet, and when the weather is perhaps

still stormy, you can build a snug, cheerful fire in the center of your tepee, hang your wet garments on ropes about you, stretch out on your blankets, and watch the fire burn and the blue smoke curl out through the chimney into the black night.

Many a night, before you had the tepee, you have stood about an outside fire that struggled heroically for existence, a soaking rain threatening every minute to drown it; when you have trudged from side to side of the fire to get out of the smoke, vainly trying to dry your clothing, and the rain wetting it as fast as the fire dried it. At such times, would you have welcomed a round tent with a hole in the top, that you might build a fire within and be sheltered from the driving rain, or the nipping frost?

I have been asked if the rain did not come in through the hole in the top of the tent so as to drown the fire and wet the inmates. I have weathered some heavy rain and snow storms in mine, but have never suffered any inconvenience from this source. However, to obviate any such possibility, a small piece of canvas may be carried along, spread over the tops of the tent-poles, and tied fast, so as to effectually shelter the chimney without obstructing its draft. Your tent, of whatever pattern, should be securely guyed by ropes leading from the top to distant points in various directions, as a precaution against wind-storms. It should be pitched on slightly sloping ground, and a trench dug along the upper edge of it, to prevent the water from running under and wetting your bedding.

Pass a rope across your tent near the top, on which to hang your clothes when you go to bed. If the poles are on the outside, this may be provided for by sewing loops on the inside of the tent. If a wall-tent be used, then a sheet-iron stove should be carried along. There are several camp-stoves in the market, one, at least, intended solely for heating, and others for heating and cooking. Any tinner can make a good camp heating-stove. The best pattern is simply a cone with the pipe-collar on the smaller end. The mouth sets on the ground, and near it is a hinged door, about six inches wide by eight inches high. Four joints of pipe should be taken along, and these are made to telescope, so that when packed they are but little longer than one joint would be. This is known as the Sibley stove, and I believe is patented, but any-one may make, or have made, a single patented article for his own use without infringing the patent. The stove may be made of any desired size, but one of about eighteen inches in diameter at the mouth and eighteen inches high will, if well fed with good dry wood, heat a tent twenty feet square comfortably when the mercury is 20° below zero. Camp cook-stoves are made either stationary or to fold, but the former pattern is, on the whole, most desirable.

The size should of course be regulated by the size of the party to use it; but, by economical use, a stove 12 inches high, 16 inches wide, and 26 inches long will furnish cooking capacity for six men.

Little space need be wasted by the stove, for

in packing for transit you can fill both the oven and fire-box with tinware and cooking-utensils. The stove should be packed in a strong box or trunk, made for the purpose, with metal corner-pieces, handles, and lock. It can then be checked on railroads as other baggage, and may be packed on a pack-animal or hauled in a wagon, over any kind of road, without injury.

An important part of almost any camp outfit is a boat. If the chief object of the expedition is fishing or duck-shooting, or if for any reason a large portion of the outing is to be spent on the water, then this item would be one of the first to be considered. If, however, the trip be in search of large game, there is scarcely any section of the country, likely to be visited, in which a boat is not occasionally needed.

Lakes or streams are liable to be encountered where a boat would be a most welcome accessory for fishing, exploring, or for reaching desirable hunting-grounds. Canvas folding boats are now made so serviceable that I should never start on a hunting-trip, in any country where I expected to find much water, without one in my outfit. For several years after the introduction of these, I regarded them with a good deal of suspicion, but later investigated them thoroughly, and found them perfectly safe and reliable, if properly handled. Two years ago, when starting on a long exploring and hunting expedition in the Rocky Mountains, I bought an Osgood canvas boat, and took it with me. It is only 12 feet long, 3 feet beam, weighs when light-rigged but 28 pounds;

folds into a package 16 inches in diameter, 3 feet long, and is capable of carrying 600 pounds. I carried it hundreds of miles on a pack-mule, and found it an invaluable aid in our work. We explored lakes and rivers with it that must have remained unknown to us had we not had a boat, and by means of it we caught many a mess of mountain trout in lakes where, without it, we could not have caught one. We crossed several large streams in it, and thus reached good hunting-grounds that we could not have reached otherwise. I made one cruise of twenty miles in it, on Clark's Fork of the Columbia, avoiding a ride, or rather a tramp, of a longer distance over a bad trail and through densely timbered, swampy country.

A photograph camera is another essential element of the pleasure of an outing, of almost any kind, and in almost any country. It is a luxury rather than a necessity, and yet it can not be dispensed with without sacrificing a large portion of the possible benefit of the trip. In the selection of this instrument, the sportsman must consider his own tastes, his bank account, and the question of transportation. A tripod camera, that will make a 5 x 7 picture, and fitted with a $25 rapid hemispherical lens, is desirable, but is both bulky and expensive.

A good camera, making a 4 x 5 picture, fitted with a $15 lens, is sufficient for recording all the choice bits of scenery, views of the camps, fish, and game, and for making portraits of the party, in a manner to add a hundred-fold to the pleasure of the

trip. This size of camera may be provided with a tripod, but a much better style is the detective camera. In this the troublesome tripod and focusing-cloth are dispensed with, and 50 per cent. of the annoyance formerly attendant upon out-door photography is obviated.

Detective cameras may be had at prices varying from $15 to $35. The little Kodak, or Waterbury, are good for the prices at which they are sold; but if one's means will admit of a larger outlay, then it is better to buy an Anthony instrument, costing, when fitted with the roll-holder, $50 to $80, owing to size of box and quality of lens.

Glass negatives should no longer be thought of for out-door work. Celluloid is now prepared for the purpose so successfully as to put glass clear out of the field.

The camera should be provided with a roll-holder, and when this is fitted with a spool of celluloid holding forty-eight to one hundred exposures, the amateur may go on making views for a week or more without stopping to change plates. No plates need be developed in camp; that should be postponed until the party returns home, where the best of facilities, as to dark-room, chemicals, and other appointments, may be had.

Photography is so simplified of late years, by the introduction of the dry-plate process and other improvements, that by a careful study of the little book entitled "How to Make Photographs," which is furnished with each camera, and a few days devoted to making experiments,

any person of ordinary intelligence may learn to make fair pictures. Of course it still requires years of careful study and practice to become an expert photographer; but such is not the aim of most persons who take up photography merely as an adjunct to hunting and fishing, and to make such pictures as would be satisfactory to most people under such circumstances but little study and practice are needed.

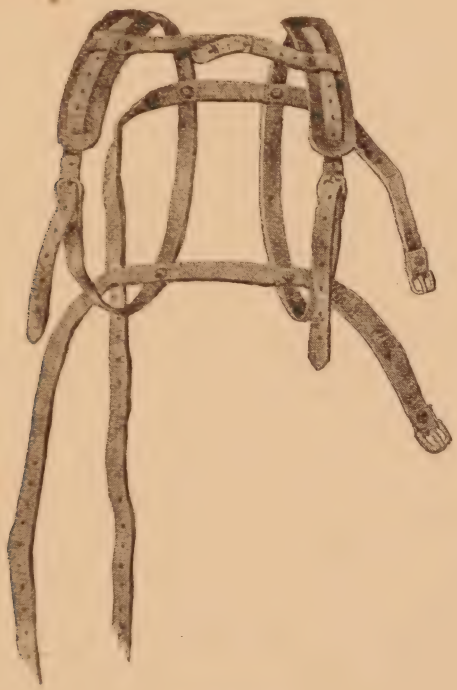
A strong, solid trunk should be made for the camera, into which it should fit snugly, and be protected from concussion by pads of cotton or wool. Apartments should be made at one end of the trunk to hold the glass plates, celluloid, or whatever of this nature is to be used; also the ruby lamp, and whatever other small articles are to be included in the outfit.

The trunk should be thoroughly ironed outside, and provided with handles. It may then be checked as other baggage without fear of injury to its contents. A rubber bag should also be provided, into which the camera can be inserted when carrying it short distances, as a protection against rain. It is a delicate instrument, and must never be allowed to get wet.

Another handy item in a camp outfit is a pack-strap. The accompanying diagram will enable any leather-carpenter to make one. It is light, cheap, and often useful for carrying blankets, provisions, and game into and out of places where a horse can not go.

Each man should carry, when tramping or riding in the country, a rubber drinking-cup. He

should also advise his companions to carry them. This thing of all drinking out of one cup is not pleasant to cleanly disposed persons, and, besides, often entails unnecessary delay when crossing a stream.



Pack-strap.

The party should carry a generous supply of rope. It will frequently come in demand for various purposes. Not less than fifty feet each of quarter-inch and half-inch should be provided, in addition to the picket-ropes, tent-ropes, etc.

Each man should carry a field-glass. It is one of the greatest luxuries I can think of for a trip in the mountains or on the plains, and will often come in play in the dense woods. By its aid rocks are often turned into live animals, and *vice versa;* elks or bears are often found to be only cattle or horses, and sheep sometimes turn out to be antelopes ; a clear pool of water is often transformed into a dry bed of alkali, and a white rock proves to be a wild goat. The glass is useful in hunting your lost horses, and in looking out a favorable camping or hunting ground. It saves you an immense amount of riding and walking, and pays for itself once a week regularly. I once found a large herd of Rocky Mountain sheep by the aid of my glass that I never would have seen without it. I got the largest ram in the herd, and wouldn't take $100 for his head now.

And while you are buying a glass, get a good one. It will cost $20 to $30, but will prove a good investment. Never allow any man to talk you into a telescope. It is no good for hunting.

A good compass is another important item. It should be of a quality costing $2 to $3, and should be set in a nickel or silver hunting-case.

You should carry a good watch; not necessarily a fine gold one, but one that will keep the time correctly. A lame watch is even more annoying in the woods, where you have not the town clock to set it by, than it is at home, and you know how it is there.

You should carry a pair of smoked glass gog-

gles if you are likely to be out on snow or water when the sun is shining brightly.

If traveling on the far Western prairies, a canteen is useful. Fill it with cold tea or coffee in the morning, and put a small lump of citric acid in it. This will afford you a refreshing drink, even if it gets very warm. This citric acid also adds to the palatable qualities of warm water. If the water is stagnant or impure, it should be boiled before drinking it; if alkali, add a teaspoonful of muriatic acid to a gallon of water before boiling. This will precipitate the alkali to the bottom, and render the water drinkable. The acid should be carried in a bottle, with a rubber or glass stopper, and this let into a solid block of wood, so that it can not be broken.

As to the amount of money to be carried, no general directions can be given. You must be governed by circumstances; but it is always well to take enough along to meet any possible contingency, and several dollars of it should be in small change.

Always carry a good map—the best you can get—of the country you are to visit. It will be a great source of comfort to you.

A supply of stamped envelopes will often be found useful, if you are to pass a ranch occasionally.

No man should ever go into the woods or mountains, or on the plains, without a water-proof match-box; and yet, strange as it may seem, there appears to be no such thing in market. I have several times hunted through gun-stores,

hardware-stores, fancy goods stores, and other likely places for a pocket water-proof match-box, but could never find one that was actually water-proof, though I have found many that were said to be so. I finally devised one, and got a surgical instrument maker to make it for me.

It consists of a piece of brass tubing, three-quarters of an inch in diameter and two and a half inches long, with a bottom-piece soldered on, and cover screwed on, the shoulder below the thread being packed with water-proof steam-packing. It has almost saved my life several times; and before I got it I came near perishing two or three times for want of it. I have frequently got wet to the skin in rain-storms, in accidents to my canoe, or in swimming my horse across swollen streams; and of course, in such cases, my matches, when carried in the ordinary tin or rubber box, have fared the same as my other wordly effects. In each case I managed to reach camp or a ranch just before I died; but a dry match, with which I could have started a fire, would have saved me several acres of suffering.

A convenient and serviceable camp-kettle is one of the most important items of the whole outfit. Its size must depend upon the number of hungry men that are to be fed from it. For a party of four, it should be ten inches in diameter and sixteen inches deep. It should be made of heavy galvanized iron, with a quarter-inch wire around the top, a bail of the same size, and with heavy malleable iron ears. If built on these specifications, it may be packed on a horse, and if properly

placed in the pack, the lustiest packer in the mountains may cinch it till his eyes stick out, and it will show up at night as sound and shapely as it was when it started out in the morning.

Two tin pails, made of good heavy tin, should be made to nest in this kettle. They should each be nine inches in diameter and eight inches deep. They should have flat lids, that fit tightly, with small, movable wire rings on opposite sides of the lids below the corner. Then, when you desire to cook dried fruits, rice, oatmeal, farina, beans, or other food that is liable to scorch when cooked in an ordinary camp-kettle, you can place it in one of these tin pails, put in with it a sufficient quantity of water, fit the lid on, fill your camp-kettle half full of water, drop three or four pebbles in it, set your tin pail in on them, put your kettle on as hot a camp-fire as you can make, and let it hump itself until dinner is ready. Then take out your tin pail, knock the cover off, and your rice, fruit, or whatever it may be, will show up as clean and delicious as your wife or mother could cook it at home. If you cook more than you need for one meal, and are to move camp before the next, fit your cover on, set the pail into your camp-kettle, and the cooked grub will ride to your next home as well as though it had not been cooked. I have frequently cooked enough fruit or rice at one time to last our mess three or four days, when we were traveling all the time, and found it a great luxury to have this much of a meal always ready. Indeed, I have frequently had both pails full of cooked food at once. When-

ever either is not in use in this way, however, it may be utilized as a catch-all for tin cups, spoons, knives, forks, soap, dish-cloths, and other camp bric-a-brac. When the kettle is filled, it should be set into a gunny-sack of nearly its own size, a bunch of rags or other soft material placed on top of the upper pail, and the mouth of the bag should be tightly tied over it. This will hold the contents in place, no matter how rough a traveler your pack-horse may be.

You will need one or more large frying-pans, with flat wrought-iron handles. When cooking on a big fire, you can cut a stick two or three feet long, split the end of it, slip the end of the iron handle into the split, wrap the stick with a cord, and then stand well back from the fire, so that your meat will fry before your face does.

Two or three tin pans should also be provided, of a proper size to nest in the frying-pan, in packing. They will add but a trifle to the weight, and will be found very useful at meal-time.

You should also have a good-sized wire broiler, made double, so that the meat can be laid on one part and the other will fold down on it, the two handles to fasten together with a running ring. The handle may be spliced out with a split stick, the same as in case of the frying-pan. A half-inch board should be cut, of a size slightly larger than the broiler, to fold in it when packing, and keep it from being smashed in the pack. The edges of this board should be reinforced with slips of hard wood, to prevent it from splitting. The broiler will be found one of the greatest lux-

uries of the whole kit. Very few campers carry them, but depend entirely on the frying-pan for cooking fish, and almost entirely for cooking all kinds of meats. This greasy cooking is unhealthy, and in time becomes distasteful, while a nicely broiled steak, fish, or bird is always palatable to a hungry man.

## CHAPTER IV.

### CAMP EQUIPAGE—CONTINUED.

If traveling with a team, and without a stove, a "dutch oven" will be useful for baking bread, meats, and vegetables; but if traveling with pack-animals, canoes, or mackinaws, it will be found cumbersome, and in all such cases it is better to depend on the frying-pan for baking, and on the camp-kettle and broiler for cooking meats and vegetables.

The coffee-pot or tea-pot should be made of heavy block-tin, with the lip merely folded or pressed from the main body. The handle should be riveted on, and the bail attached by heavy malleable iron ears. Plates and cups should also be of block-tin, and the latter should be pressed, and have the handles riveted on at the top and loose at the bottom, so that any number of them will nest. Knives and forks should be of steel—not cast-iron—and the former should be kept sharp enough to cut meat without generating profanity.

The ax should be full-sized, weighing about three pounds, should have a full-length handle, and should be carefully muzzled, so that it will not cut any of the other articles in the pack or in the wagon. A good muzzle is made of sole-leather, fastened with copper rivets, and

should have straps to pass over the poll and around the handle, and they should then buckle. Personally, I never carry a hatchet. My large hunting-knife does almost any work that a hatchet will do, and much, in the way of cutting up game, etc., that it will not do, and when there is a log to chop off, or a tree of considerable size to cut down, I want a full-grown ax to do it with. Even when canoeing, or traveling on foot in the woods, I carry an ax.

It is possible to dispense with several of these articles, when one desires to travel lightly. Indeed, it is astonishing how many things a man can do without, and still live, if he hasn't them and is where he can't get them. It is possible for a man to go into the woods and live a month with no other outfit than a gun and some ammunition, a pair of blankets, a few fish-hooks and a line, a bag of hard-tack, and a couple of pounds of salt.

Nessmuk, in his charming little book, "Woodcraft," says: "My entire outfit for cooking and eating dishes comprises five pieces of tinware. This is when stopping in a permanent camp. When cruising and tramping, I take just two pieces in the knapsack. I get a skillful tinsmith to make one dish as follows: Six inches on bottom, six and three-quarter inches on top, side, two inches high. The bottom is of the heaviest tin procurable, the sides of lighter tin, and seamed, to be water-tight, without solder. The top is simply turned, without wire. The second dish to be made the same, but small enough to nest in the first, and also to fit into it, when inverted, as

a cover. Two other dishes, made from common pressed tin, with the tops cut off and turned, also without wire. They are fitted so that they all nest, taking no more room than the largest dish alone; and each of the three smaller dishes makes a perfect cover for the next larger. The other piece is a tin camp-kettle, also of the heaviest tin, and seamed water-tight. It holds two quarts, and the other dishes nest in it perfectly, so that when packed the whole takes just as much room as the kettle alone. I should mention that the strong ears are set below the rim of the kettle, and the bail falls outside, so, as none of the dishes have any handle, there are no aggravating 'stick-outs' to wear and abrade. The snug affair weighs, all told, two pounds. It is not necessary to take table cutlery into the woods. A good fork may be improvised from a beech or birch stick; and the half of a fresh-water mussel-shell, with a split stick by way of handle, makes an excellent spoon."

This outfit will meet the absolute needs of two men, as to table-ware and cooking-utensils, but most of us would prefer to carry a few additional pieces during the day, in order that we might be more conveniently equipped for cooking and eating supper and breakfast.

If you have plenty of transportation, carry a spade. It will be found useful for ditching around your tent, and sometimes for digging for water; but if horse-flesh is scarce, leave the spade at home. You can make one in a few minutes from a sapling, if in the woods, and if you

camp on the prairie, you can dig the trench with an old knife.

A folding rubber or leather bucket is useful in many ways; but if you can't have pretty much everything you want, leave this out, for you can make the camp-kettle, coffee-pot, or other camp ornaments answer the same purpose.

In nearly every company of three or more men will be found one who, if not a professional mechanic or artisan, is at least handy in the use of tools. Such an one should carry with him, when circumstances will permit, a kit of tools and materials such as are most likely to be needed for repairing possible injury to guns, fishing-tackle, boats, harness, wagon, cooking-utensils, and other equipage. Great inconvenience, and, in fact, absolute suffering, sometimes results from a serious break-down, especially to boat, wagon, or gun, when there is no possible means at hand of repairing it.

The kit need not be elaborate, heavy, or expensive, for, under compulsion, an ingenious mechanic may make one tool answer many purposes. He may draw on Nature for many implements and materials needed, if he has not brought them with him. The list should include one of the latest and largest tool-holders, which has a thumb-vise attached, and contains a good assortment of brad-awls, a gimlet, reamer, file, saw, chisels, screwdriver, gouge, etc. It should also include a pair of pliers, a hammer, a small hand-saw, two or three shoemaker's awls, a harness-needle, and a sail-needle.

Among materials to be carried should be a strip of thong-leather, a small piece of tempered steel, a spool of fine copper wire, and half a pound each of Nos. 12 and 18 copper wire; a pound or two of wire nails and brads, assorted sizes; a pound of horse-nails, and a few horseshoes, assorted sizes; a few screws, and a supply of the component parts of the various guns and rifles carried in the party, or at least of such parts as are most likely to give out. A few copper rivets, assorted sizes, and some waxed-ends should also be provided.

All these, except the saw, should be carried in a stout canvas case, made after the pattern of the toilet-case described on page 26. It should be made large enough to hold, in addition to these articles, the reloading tools, if any are to be taken along, though, as a rule, it is not advisable to carry them. These and the loose ammunition add to the care and anxiety of the owner, and it is better to provide a full supply of loaded cartridges before starting out. The saw should be tied between two thin boards, of the proper size and shape to hold it, so that the teeth can not come in contact with any other object.

A temporary vise may be made, anywhere in the woods, by cutting off a sapling, five or six inches in diameter, about two feet above the ground, and splitting the stump in the center. You can pry the jaws open with the ax, to insert the article you wish to work on, and then, if the pressure should not be sufficient to hold it firmly, put a rope around it just below, rig a tourniquet, and squeeze the stump till the sap simmers out at the top.

## CHAPTER V.

### GUNS AND RIFLES.

On this subject there is really little to be said in a work of this kind. It is presumed that every man who reads this book has already formed his ideas as to the best arm for his purpose. This must, of course, depend on where he is to go and what kind of game, if any, he is to hunt. It is presumed, however, that nearly every man who goes on a camping-trip of any kind, for pleasure or on business, and even if the principal business is to be fishing or resting, will carry fire-arms of some kind, for in nearly every wild country there is game, either large or small, and nearly every man likes to shoot at it when he sees it. Personally, I prefer a large-bore rifle for all kinds of large game, and would recommend nothing smaller than a fifty-caliber for anything from deer to moose and bear.

There are those, however, who object to carrying so heavy an arm and such heavy ammunition. Deer, antelope, and even larger game, may be killed with a 32, 38, or 40 caliber rifle, but unless hit in a vital part, are liable to run long distances before succumbing to the shot; and many animals, although killed, are thus lost. I consider it more humane and sportsmanlike, therefore, to carry a fifty-caliber Express, which will, in most cases,

kill your game dead in its tracks, if properly held.

If one be not expert in the use of the rifle, and prefers to use the shot-gun, he will also, in most cases, have made his choice as to the make, size, and weight of gun. In this, as in the rifle, a large bore and heavy charge is recommended for all game larger than quails and snipe, for the reason that it kills a larger percentage of the game hit than does the smaller bore, shooting the lighter charge. As already stated, the carrying of enough loaded cartridges to last through the trip is advisable, and the reloading tools should be left at home.

It is well, also, to carry a liberal supply of ammunition, not that more game may be killed than is needed, but that the sportsman may feel that he has plenty, and that his pleasure may not be marred by having to husband his supply too closely. If traveling in the Far West, especially, he will most likely have opportunities to do a good deal of shooting at hawks, owls, eagles, skunks, coyotes, foxes, and other vermin, and it is well to be prepared to "fan" every one of these wherever found.

The pasteboard boxes, in which the reserve supply of cartridges is placed, should be wrapped in cotton cloth, so that they will not break open, and should then be packed in strong wooden boxes, if you are to travel by team. If by pack-train, then they may be distributed among your clothing in your "war-bag."

If you carry your cartridges in a belt, it should

be provided with suspenders, to bring the weight on your shoulders, instead of on your hips and bread-basket.

To this belt, if you are hunting big game, should be hung the scabbard containing your hunting-knife, skinning-knife, and steel. The hunting-knife should have a blade not less than eight inches long, should be of the best steel obtainable, sharp on one edge only, nearly a quarter of an inch thick at the back, and should have a strong buck-horn handle. The skinning-knife should also be of good quality, but thin, with the front end of the blade broader than the rear portion, and well rounded off. In addition to these, a good-sized, strong pocket-knife should be carried. These will all be useful in various ways, but especially for skinning and cutting up large animals, and for preparing their heads for mounting.

For wing-shooting the better plan is to wear a vest, with cartridge-holders distributed over the front. If going to distant hunting countries, you should provide strong wooden cases for your guns, so that they may be checked with your trunk. It is unpleasant to have to care for them in the cars en route. You should have strong canvas or leather cases to carry them in after leaving the railroad, so that they may ride safely with the other goods in the wagon or in packs, for there will probably be many miles of travel over countries where there is no game, and over which you would not need to carry them in your hands or on your saddle.

## CHAPTER VI.

### FISHING-TACKLE.

This is another subject that need not be treated at length here, for the reason stated in the chapter on guns, namely, that the reader is presumed to know what he wants to carry with him. I will briefly say, that, if going into the Far West, you should carry both a fly and a bait rod. These should be packed in a strong wooden case, that may be carried in a pack and cinched till the mule groans, or thrown into a wagon and buried up in boxes of grub and other bric-a-brac, without danger of injury. Take as little other tackle as will possibly meet your needs. What you do take should also be in a strong wooden box. Your fancy tin tackle-box is no good for the wild and wooly country. It is sure to come to grief.

For mountain trout you will need but a small variety of flies, the brown hackle, red ibis, and white moth being the favorites. Don't carry a creel, but instead take a strong canvas bag of about the same capacity. It will answer the purpose, and be much more convenient to transport.

## CHAPTER VII.

### HORSES AND THEIR EQUIPMENT.

If you are going beyond the Missouri, whether your destination be the mountains or the open plains, you must have a saddle-horse. It is possible, of course, to ride on the wagon or buck-board, so far as either can go, and then to hunt on foot, and many do so; but a man who goes on such a trip without a saddle-animal is sadly handicapped; he might almost as well go without a gun.

Ponies, or cayuses, as they are called in the vernacular, are cheap. Twenty to forty dollars will buy a good one in almost any far Western town, and you can frequently hire one for $10 a month. In selecting one, the first requisite should be gentleness. Avoid a bucking cayuse as you would a man who borrows money. Furthermore, be sure that he will stand fire. Satisfy yourself that he will allow you to shoot from the saddle, or from anywhere near him, without making any nonsensical fuss about it. Never take the word of the owner of a horse for any of his good qualities, for men will lie about their horses as universally as about the fish they don't catch. Usually someone else in the town or neighborhood will know the horse. If not, have someone, whom you would just as lief see killed as not, ride the horse, and fire a few shots from the saddle. A saddle-

horse for a long hunting-trip, especially in the mountains, should be very solid, muscular, and stocky.

The same general rules apply, also, to the selection of pack-horses. Nothing is more annoying than to have some pack-animal in the train buck every morning when the load is put on him, or stampede and run whenever a shot is fired on the trail. He will cause more annoyance and profanity than a gun that fails to go off when you pull the trigger.

Your riding-saddle should be a full-sized Mexican, of not less than twenty-five pounds, should have a double cinche, and plenty of strings for tying on your coat, blankets, etc. If you are not accustomed to the frontier, be careful not to allow anyone to impose on you in the matter of a saddle. Don't allow any interested party to talk you into a small, cheap affair. Insist on a full-sized, well-made saddle, such as you see the cow-boys riding. With the best one in the market, you will, during the first few days out, be sorry you enlisted, and will eat your meals standing. If you get a poor one, you will wish you were dead.

The seat should be full size, of easy, well-fitting shape, and the horn and cantle should rise well up in front and rear. Good second-hand saddles can usually be bought in frontier towns at from $10 to $25—less than half their original cost; or one may frequently be hired for from $3 to $5 a month.

Always keep your rubber coat strapped to your

saddle, no matter what the weather may be when you start out. It may change suddenly.

Good-sized saddle pockets should be attached to your saddle. They are handy to carry lunch and many other articles in, and it is a good scheme to put a lunch in them every morning when you start out, even though you expect to be in camp or with the outfit at noon, for you never know what half a day may bring forth. I always carry a bunch of hard-tack, or pilot bread, and a small bag of salt in my saddle-pockets all through the trip, as a reserve against any possibility of getting lost, or following game a great distance, and having to lay out over night. In such a case a man can nearly always kill a piece of meat, of some kind, if it be nothing better than a skunk, and, with some bread, salt, and water, may make a fair meal. With his rubber coat, saddle, blanket, and a good fire, he may get a fair night's rest.

Your bridle should be good and strong, with a curb-bit, and the reins should be at least eight feet long. Then, when you have occasion to dismount, you can throw the reins over your horse's head, and if he attempts to travel he will step on them and check himself. Thus you can depend on finding him near where you left him.

The picket-rope should be three-quarters of an inch thick and fifty feet long.

It is well to have an iron picket-pin if you intend to operate much on the open prairies. This should be an inch thick and ten to twelve inches long.

Your long bridle-reins will usually answer for a whip, though for a lazy horse it may be necessary to carry a quirt, or riding-whip, which should be hung to the horn of the saddle by a loop. Spurs are a relic of barbarism, and should never be worn by a civilized man.

A good heavy saddle-blanket should be used, and great care should be exercised in folding and spreading it on the horse, in order that there may be no wrinkles in it. Many a sore has been started by carelessness in this matter. In hot weather, the backs of both saddle and pack animals should be bathed with cold water at least once a day. The best time is about half an hour after the saddles have been taken off. A supply of oakum should be carried along, and if a sore does occur, a quantity of this should be kept spread over it, and it should be frequently bathed. It is next to impossible, however, to cure a sore back while the animal is at work; and an animal so afflicted should be at once turned out to follow the outfit, or be traded off to some ranchman who can turn him out until he recovers. It is a piece of unpardonable cruelty to work an animal with a sore back, when it can possibly be avoided.

The best device for carrying a gun on horseback is a "boot" made of heavy harness leather, and hung to the saddle in such a way that the butt-stock will lay near the horse's withers, and the barrel pass under your left leg. In this position, the gun is easy to get at when wanted, and will not pound you or the saddle when you run your horse. This style of boot may be found in any

far Western town, or in the larger gun-stores in the East.

Pack-saddles are usually provided, or, at least, looked after, by the guide or packer who is to use them. It should be the care of the leader of the party, however, that they are good strong ones, and that a full supply of sling-ropes, lash-ropes, cinches, picket-ropes, and saddle-blankets are provided, and all of the best quality. Ropes or other equipments that are constantly breaking or giving out are a source of untold annoyance and delays, and a few dollars expended at the start, as a precaution against such disasters, will prove a good investment.

The pack-saddles, or apparejos, whichever may be used, should be provided with breast-straps and breeching, as these enable the animals to carry their loads with greater ease and comfort, and greatly reduce the danger of sore backs.

## CHAPTER VIII.

### GUIDES.

And now comes the most difficult article in the whole outfit to provide successfully and satisfactorily to all concerned. There are more unmitigated frauds traveling under the disguise of guides than under any other known to science. You can scarcely get off a train in any mountain town, with anything about you that suggests a hunting-trip, without being button-holed by some superannuated old bum, in greasy buckskin trousers; with long hair; with tobacco-juice trailing down over his chin, and the odor of poor whisky emanating from his cavernous maw, who will inquire if you are going hunting, and who, if you reply in the affirmative, will offer his services as a guide. He will tell you, with great earnestness of manner, that he knows "every foot of the kentry within 200 mile of this hyur spot;" that he "knows whar they's dead loads o' game, and kin steer ye right on top o' more b'ar, 'n' elk, 'n' deer, 'n' sheep than ye ever heard on afore in yer life." He will claim that he can cook, pack, chop wood, build bridges, make camp, butcher game, tan skins, and, in short, do anything and everything that you could possibly want done in camp, or on the march, and tell you, "ef you don't believe it, jist ax that ar feller what keeps that saloon over thar by the track."

But give this fellow a mighty wide berth. He is one of the frauds, the humbugs, I have spoken of. Now and then there is one among the lot that is what he claims to be, and knows what he claims to know. This you will ascertain by inquiring of the reputable business-men of the place, but not of the saloonkeeper you have been referred to. The majority of these fellows know the country well enough; but their ambition is not to serve you faithfully, to show you game, to do your cooking or packing, it is to eat your grub, drink your whisky, and corral as much as possible of your money. When a contract is made with one of them, and you get out on the trail, he will bend all his energies to accomplish these ends, and none of them to do the work he professed to be so expert at. In fact, the chances are that as soon as you camp each night he will unsaddle his horse, turn him out, sit down, and wait for you or someone else to get the wood and water, cook the supper, and put up the tent. The chances are, in fact, that he will conduct himself on about this line all through the trip, or until you get so disgusted with him that you pay him off and turn him back.

When you get into the town where you are to outfit, go slow in the matter of selecting your guide. Inquire of a number of the better class of citizens as to who the best man is for your purpose. It is not likely that he is in sight; he is at work on some ranch, or is earning an honest dollar in some other way. The chances are, moreover, that when you find him you will see a

younger man than the one already mentioned; that he wears cleaner clothes, a cleaner chin, and that his hair is cut short. He may not claim to know so much as the other man, but probably does know a good deal more, and will most likely do his work faithfully and satisfactorily.

If, in addition to the guide, you are to have a cook, or a packer, or both, the same hints already given will be valuable to you in selecting these.

For a small party, however, one man may usually be found that will fill all three of these offices, with such assistance as the members of the party can render him.

Indians can not, as a class, be depended upon as guides. They are liable to change their minds, and desert you in the midst of the wilderness. Besides, they are lazy, filthy, and generally disagreeable as companions. I have employed a good many of them, and have seldom found one that was worth powder enough to kill him.

And what I have said of Western guides is applicable, in a general way, to those in the North woods, to oarsmen, punters, etc. Never employ the first man who offers his services, for any such duty, until you have satisfied yourself by careful inquiry that he is temperate, industrious, and knows where to find the fish or game you are in quest of.

On pages 117 and 118 will be found a list of the names and addresses of a few guides, some of whom I have employed at various times, or who have been recommended to me, by others who have employed them, as faithful and competent men.

# CHAPTER IX.

## FOOD.

The question of what kinds and what quantity of food to carry on a camping-trip is, perhaps, more difficult to settle satisfactorily than any other that besets the sportsman when preparing for an outing. In making up his commissariat, he must, of course, be governed largely by the number of men to constitute his party, the length of time it is to be out, what is to be its means of transportation, how much of that transportation is to be provided, where the party is to go, and whether the trip is to be in quest of fish or game, or both.

If you are to travel by team, over good roads, you can, of course, carry a much more elaborate stock of provisions than if you are to travel by pack-train, by canoe, or on foot. As a rule, however, only plain, substantial food should be taken into camp. This is the kind you will crave—the kind you will need. Delicacies and dainties should be left at home; they are well enough in their place, but their place is not in camp. As a rustler once expressed it: "Pie and cake are good enough at home, but they don't climb the hills worth a d—n."

Cancel all the knick-knacks on your list at the start, and give your stomach a chance to recover,

during your outing, from the ill-effects of the rich food you have been stuffing it with for years past. Bread, meat, vegetables, and fruit are the staples that you will require when you come to climb the hills, tramp over the prairies, wander in the woods, or pull on the paddles.

How to make up a list of edibles, suitable as to quantity, quality, and variety, for a given number of days in the woods, is, therefore, a serious question with many people; to the old-timer, however, it is the work of but a few minutes. He knows, by experience, just what he wants to eat, and how much of it he will need per day.

As to quality, buy the best of everything; it costs but little more than an inferior grade, and the best is none too good for an honest man.

As to quantity and variety, no better guide can be given than the list of articles given in the army regulations as constituting the soldier's ration. It is the result of years of study and practical experience by men whose occupation is largely that of camping and campaigning. These army officers have learned to a nicety what an ordinary man, engaged in active out-door work, or play, requires to fill him up three times a day, and to keep him strong, healthy, and happy.

The following is the list, as published by the War Department, of the items constituting a soldier's daily ration:

For garrison or field duty: 12 ounces of pork or bacon, or canned beef (fresh or corned), or 1 pound and 4 ounces fresh beef, or 22 ounces salt beef; 18 ounces soft bread or flour, or 16 ounces

hard bread, or 1 pound 4 ounces corn-meal; and to every 100 rations 15 pounds beans or peas, or 10 pounds rice or hominy; 10 pounds green coffee, 8 pounds roasted coffee, or 2 pounds tea; 15 pounds sugar; 4 quarts vinegar; 4 pounds soap; 4 pounds salt; 4 ounces pepper; 1 pound 8 ounces candles; and to troops in the field, when necessary, 4 pounds yeast powder to 100 rations of flour.

When troops are traveling by rail or steamboat, the ration is varied, as follows: Per 100 rations, 112½ pounds soft bread, or 100 pounds hard bread; 75 pounds canned fresh beef, or 75 pounds canned corned beef; 33 1-pound cans baked beans, or 20 2-pound cans, or 15 3-pound cans; 8 pounds roasted coffee; 15 pounds sugar.

Anyone who has ever had the good fortune to eat a meal with a body of our regular soldiers, in garrison or on the march, and when on full rations, knows that they fare sumptuously, that they have everything to eat that any man could reasonably want under such circumstances. The lists of supplies on pages 114, 115, and 116 are based on this stipulation as to the soldier's ration.

If you are going into the woods, and have abundant transportation, and especially if you are to have a permanent camp, take the whole business, and you will live like a fighting-cock. If your transportation is limited, base your requisition for supplies on that one of these lists that best suits your condition, and you will still be well victualed. If you are sure you are going to find plenty of game or fish, you can reduce the

quantity of meat accordingly; but don't be too allfired sure of that. This world is full of disappointments—for hunters and anglers. You have heard of fellows going for wool and coming back shorn.

Unless you are going to have a permanent camp, which can be reached by a good wagon-road, don't carry any canned fruits. They are a delusion, and are two-thirds water. The chances are you will get better water where you are going, and save the freight.

Fruits are dried or evaporated in such excellent style nowadays, that there is no need of carrying them put up in tin and water. These remarks apply with equal force to the popular Boston fruit—canned beans. All provisions should be put up in good, strong canvas bags, or in wooden or tin boxes. Never risk paper packages on a camping-trip, or you may find your sugar, salt, coffee, beans, and other things sadly mixed.

Don't take any whisky into camp. The guide, packer, or cook is sure to steal it and get drunk, if you don't keep it under lock and key, and your friends are better off without it.

## CHAPTER X.

### ON CHOOSING A CAMP-SITE.

To know how to choose the best possible site for a camp is one of the most important parts of a sportsman's education. There are many old-time woodsmen and professional guides who are sadly lacking in this faculty, and I have seen civil engineers, geologists, and other learned men act like boys ten years old, when they attempted to choose a camping-spot. Such people simply lack judgment in this one direction. They are incapable of choosing wisely between the least of several evils. Other men choose camp-sites by what appears to be inspiration. They seem to know at a glance what is the best spot in a given section of country, and never have to think twice to decide where to locate. This faculty can not be acquired by reading books—it is innate, like poetic genius; and yet there are certain general directions that may be given, and that, if followed, will greatly aid the student of camp-lore.

Weather permitting, always pitch your camp on high ground. The top of a ridge is usually best; or, if this is too high for convenience, select a level bench on the side of a hill. The inclination to camp near the water is always strong in every man's mind, and if the weather and the

shape and nature of the ground are such as to warrant it, it is pleasant to lie awake at night and hear the brook babble, the river roll, or the waves wash on the pebbly beach; but frequently the ground is damp on the creek or river bottom, whence miasmic vapors will arise, or there is there a rank growth of weeds that give off noxious odors.

If the time be summer, the mosquitoes are likely to be much worse at the water's edge than farther away, and, in either case, it is better to camp well up the hill, carry what water you must use, and do without the aqueous music.

Again, if your camp be pitched on the bank of a Western stream, you may go to bed at night dry as toast, and wake up before morning to find yourself and your whole outfit being carried down the valley on the bosom of a flood that has come from a cloud-burst.

An old hunter friend of mine was once guiding the Surveyor General of Montana through a wild portion of that State, and they camped, at night, on a little creek that flowed out of the mountains a few miles away. The General ordered the tent pitched on an inviting lawn, within a few feet of the sparkling water. The guide cautioned him that it would be safer to camp on higher ground, as this was the time of year when cloud-bursts were fashionable. The General retorted that the guide was overcautious, and the tent was pitched on the spot already selected. Along toward morning, the General, who slept on the lower side of the tent, woke up with a firm con-

viction that water was oozing through his blankets onto his spine. He called the guide, and asked what it meant. The guide told him to put his hand out from under the tent and see if it were raining. The General did so, and socked his arm into cold water to his elbow. Just then the rushing of angry waters was heard. Both men sprang to their feet, and the guide told the General to run for high ground if he wanted to live any longer. They grabbed a few articles of clothing, and escaped by wading to their waists, but their tent, blankets, saddles, cooking-utensils, and grub were driven into the Missouri River. A wet cloud had collided with the side of a mountain, and had come down the valley in a body. And it is safe to bet that, thereafter, the General aforesaid selected his camp-sites above high-water mark.

Water and land are not the only requisites of a good camp-site. If you are traveling in a wild country, with horses, and have not a supply of grain, you must camp where there is good grass for them, even though you have to do without water for a night. It is more important that your horses should be well fed than that you should be well watered, for their work is much harder than yours. Of course, they should have water as well as grass, but will not suffer for the former in twenty-four hours. Always fill your canteens or casks at any water you pass during the day, and then you will be prepared for any such emergency.

Never pass a good camp-ground in the afternoon, unless you know there is another that you can reach before sundown. It is better to camp

at noon, or 1 or 2 o'clock, where there is good feed, water, and wood, than go on to a later hour and have to camp without either one of the three. Always manage to carry some cooked meat and bread, or hard-tack, and then, if compelled to camp where there is no wood, you are not compelled to eat raw meat straight.

If traveling on the prairie, in cold weather, where you can not find a grove to camp in, go just over the brow of a hill, to leeward, and pitch your camp on the side. The wind will not strike you there as it will at the foot of the hill or in the draw.

If traveling in the woods or mountains, in summer or autumn, and you are to camp without a tent or other artificial shelter, make your bed near the trunk of a large tree. Its branches may shield you from a possible shower, and will at least keep off the dew or frost. The spreading branches of the large firs and cedars, that grow in portions of the Rocky and Cascade Mountains, are almost equal to a tin roof for shedding rain. I have camped under some of them when it has rained till you could scarcely see fifty yards through it, and not a drop of water has reached me.

When tramping or canoeing in the big woods, observe the foregoing hints as far as they are applicable to your case, and, in addition, always look out for any dead or decayed trees that are liable to be blown down in the night and drive you into the earth.

In selecting a permanent camp, for summer-time, be sure and get under or near some good-

sized trees, where you can have plenty of shade through the long, hot day. It is a most pitiable sight to see people trying to live in tents, out in the open prairie, or in an open field, where the sun's rays pierce them from morning till night.

In selecting a camp-site anywhere, learn to think of all the advantages and disadvantages offered by the various possible localities, and choose wisely between them. In short, learn to exercise your good common-sense and judgment in this, as you would in buying a coat or a horse.

## CHAPTER XI.

### HOW TO MAKE CAMPS.

A party going into the woods, and expecting to remain for several weeks in one place, especially in late autumn or winter, may find it necessary to build a log cabin. The limits of the present work will not admit of my going at length into a discussion of this industry, and I would advise such of my readers as may contemplate preparing a camp of this kind to read a little book written by William S. Wicks, and published by *Forest and Stream*, entitled "Log Cabins, and How to Build Them."

As to temporary shelters, other than cabins and tents, there are a great many styles known to woodsmen, many of which may be made decidedly comfortable, and with but little labor. If possible, a piece of canvas or drilling should always be carried along, large enough to form at least the roof of a lodge; but, where this is impossible, dirt, bark, rushes, or flags may be used to good advantage.

A temporary open shanty, capable of sheltering four men, may be made of thirty-six poles, eight feet long and about six inches in diameter. These are notched, and laid up in the form of an open square, the independent ends being held in place by four posts planted in the ground at the proper

places, and each pair held together at the top by ropes or withes. Other poles are then laid as close together as possible over the top, and covered with a foot of dirt, or with green cedar or elm bark; or it may be thatched with straw, grass, rushes, or flags. If either of these are used, the roof should have a steep pitch, and the thatch be put on to a depth of six inches or more. It should be lapped on the same plan as shingles are, and weighted with heavy green poles, held to the body of the shanty by ropes or withes.

If the weather be cold, the cracks between the poles should be stopped with moss, grass, or boughs; and by keeping a good log fire burning in front of the open end, and three or four feet away, a party may be comfortable in such a shanty with the mercury at zero.

A brush shelter, usually called a "lean-to," may be made by laying a pole in the forks of two posts, set for the purpose, at a height of five or six feet from the ground, leaning other poles from this to the ground, at an angle of about fifty degrees, and covering these with cedar or hemlock boughs or bark, or by thatching, as in the case of the shanty already described. If either style of roof is put on properly, it will shed a heavy rain. The ends may be inclosed with either boughs or bark.

Another form of temporary shelter is made by leaning a pole, ten or twelve feet long, against a large green tree (or by placing the upper end in the fork of a small tree), letting the other rest on the ground, and leaning bark or boughs against it,

spreading them so as to make the lodge five or six feet wide at the front end, and tapering to a point at the rear. The fire may be built against the tree on which the pole leans, but care must be taken not to allow it to reach and burn away the ridge-pole.

A comfortable winter camp may be made, when the snow is deep, by simply digging a hole in it to the ground, of the size required for your bed, constructing your "lean-to" on either of the plans just described, and then banking up the back and sides of it with snow, not, however, carrying the snow high enough so that in case it melts the water may run in on you. If the camp be not built facing a large standing tree, it should face and be within three or four feet of a large log, three feet in diameter, at least, in order that the fire may be made against it, and that the heat may thus be thrown into the lodge.

When the snow is packed hard, a house may be built from it by cutting it into square blocks, and building them up as you would blocks of stone. The house may be built round, a hole left in the top, and a small fire maintained in the center, without danger of melting the walls.

A shelving rock has often been utilized as a shelter for a night or longer, and in the mountains admirable lodges of this kind may often be found. In some cases I have found a cleft of this kind, with another upright rock just the right distance away to answer for a "backlog," and by building a fire against this, have had a most comfortable bed-chamber.

In the Bad Lands you may often find a "wash-out" five or six feet wide, in the head of which you may make a cozy bivouac by simply spreading a bit of canvas over it or by covering it with boughs. This is safe in winter, but not in summer, on account of the possibility of rain.

There are many other devices which old woodsmen and mountaineers frequently resort to for sheltering themselves when away from their homes, and a little study and experience will enable any bright man to construct a temporary shelter, from the materials furnished by Nature, wherever night may overtake him.

## CHAPTER XII.

### HOW TO MAKE A CAMP-FIRE.

Every old hunter gets tired when he sees a novice undertake to build a camp-fire. It would seem that common-sense should teach any man of ordinary intelligence so simple a thing as laying a quantity of wood together in such a way as to make it burn to the best advantage; but, strange as it may seem, the great majority of men, when they undertake to make a camp-fire, proceed as if they wanted a smoke instead of a fire; and when they attempt to feed a fire that has already been made, they proceed as if trying to put it out instead of to replenish it. It really requires a good deal of mechanical skill to build a good camp-fire.

I have often camped by some little coulee in the prairie, where the only wood was brush, and perhaps a few stunted green cotton-woods and box-elders; and while out looking for meat for supper, some of the tenderfeet would try to build a fire. They would gather some dry brush and cut some green sticks; these they would pile together without any regard to mechanical or logical order, and apply a match. There would be no chance for the air to circulate under or through the fire, and of course it would send out more smoke than flame. When we got ready to commence cook-

ing, there was no good place to put the frying-pan or coffee-pot.

I have seen these same novices operate in the woods, where fuel was abundant. They would carry great dry logs, and pile them up in utter disorder—crosswise, lengthwise, or otherwise, just as they might happen to fall when they left the shoulders of the gleaners. They would burn, of course, when ignited, but there would not be a place on the fire to set a camp-kettle, and your face would cook before your supper would.

Again, in rainy weather, I have sought out some dry log, and hewed a few chips and slivers from its under side. I have placed a couple of poles a few inches apart, lighted these slivers, and placed them between; and while waiting for the fire to start, have gone after a pail of water. While I have been away, some blooming idiot, desirous of aiding in the camp-work, has piled on a lot of wet poles, chunks, and brush—buried the whole business out of sight—and of course the fire, what there was of it, has gone up in smoke.

These are a few of the ways not to make a camp-fire. The way to make a cooking-fire is to lay down two green poles, five or six inches thick and two feet long, two or three feet apart, with notches in the upper side about ten or twelve inches apart. These we will call the "dog-irons" or "fire-irons." Now cut two more poles, six or eight inches thick and about four feet long, and lay them in the notches in your dog-irons. Procure a liberal supply of dry wood of some kind, brush, split wood, bark, or chips, and start your fire on

the ground, midway between your dog-irons. Your dry wood should extend the length of your forestick and backlog, and the fire will soon spread to either end of these. The air will circulate under and through your fire; and your forestick and backlog are just the right distance apart to set your camp-kettle, frying-pan, and coffee-pot on.

If you are going to cook more than one meal in this place, it will pay you to put up a crane. This is built as follows: Cut two green sticks, two inches thick and three feet long; drive them into the ground a foot from either end of your fire, and split the top end of each with the ax. Then cut another pole of same size, and long enough to reach from one of these posts to the other; flatten the ends, and insert them in the splits. The posts should be of such height that when this pole is passed through the bail of the camp-kettle its bottom will swing just clear of the fire. Now cut a hooked limb that will hang well on the pole, and in the shank of it cut a notch, in which you can insert the bail of the coffee-pot, and in such a position that it will also hang near the fire. All this is but the work of five or ten minutes; and then, if either your forestick or backlog should burn in two and take a tumble, or if some awkward Jake should accidentally dislodge one of them while feeding the fire, your supper goes on cooking just the same, and you feel a blamed sight more comfortable than if the camp-kettle had turned over and filled your boots full of red-hot soup.

After supper is over, you may want a good big fire in front of your tent, or in front of the place where your tent would be if you had one. If there happens to be a big log in the right place, and it be green, or wet, or rotten, so that it will quit burning when you quit firing, and so that there is no danger of its setting the woods on fire after you are gone, put down a couple of dog-irons and a forestick, as already described, and build a fire against it; or, if there should be a big bowlder or a big ledge of rock at hand, as will often happen in the mountains, this makes a capital backlog.

If neither of these ready-made articles are where they should be, you must rustle your backlog; and I can not do better than quote here from Nessmuk his description of a camp-fire, that he and a companion built in the woods on a winter night, and which every old woodsman will tell you was properly built.

He says: "We first felled a thrifty butternut-tree, ten inches in diameter, cut off three lengths of five feet each, and carried them to camp. These were the backlogs. Two stout stakes were driven at the back of the fire, and the logs, on top of each other, were laid firmly against the stakes. The latter were slanted a little back, and the largest log placed at the bottom, the smallest on top, to prevent tipping forward. A couple of short, thick sticks were laid with the ends against the bottom log, by way of fire-dogs; a forestick, five feet long and five inches in diameter, a well-built pyramid of bark, knots, and small logs, completed the camp-fire, which sent a pleasant glow of warmth and

heat to the farthest corner of the shanty. For 'night wood,' we cut a dozen ash and birch poles, from four to six inches across, trimmed them to the tips, and dragged them to camp. We had a bright, cheery fire from the early evening until morning, and four tired hunters never slept more soundly. * * * We selected butternut for backlogs, because, when green, it burns slowly and lasts a long time."

## CHAPTER XIII.

### GETTING LOST.

Almost anyone who goes into the woods or mountains only occasionally is liable to get lost. Indeed, professional guides and market-hunters, men who spend nearly all their time in the woods, sometimes get lost in localities where they have hunted for years. I once employed as guide an old skin-hunter and trapper in Northern Michigan, who got lost on our first trip into the woods, within ten miles of his cabin, and on ground over which he had hunted and trapped for years.

We started out in the morning to hunt deer, over a certain tract of country, intending to reach a certain logging-camp by noon. I suggested taking a lunch along, but he declined to join in the scheme, insisting that we should be at the camp in time for dinner. I knew how many slips there are between the cup and the camp, and put several good fat sandwiches in my pocket. We tramped till 2 o'clock without finding the camp.

Then the old man said it must be farther to the log-camp than he had supposed, and if I didn't mind he would join me in one of those biscuits. We ate them, drank full rations of cold water from a convenient brook, and went on hunting—the log-camp. At dark we were as far from it as in the morning, for anything we could tell by sights or

sounds, and were also several miles from our own camp. The old man scratched his head. We had crossed several old, abandoned tote roads during the day, but he was sure that neither of them led to the camp he was headed for, nor to any other then in use, for that matter. He finally admitted that he was lost, "teetotally lost."

We went back a short distance to one of the old roads, and followed it by starlight as far as we could, hoping it might take us somewhere. It finally got so blind we couldn't see it, and then we followed it by the sense of feeling. We came into a hard-wood country, where the ground was covered to a depth of several feet with dry leaves. We shuffled along in these, lost the road time and again, but felt around with our feet until we found it again, and kept on. Finally, we seemed to have come to the end of the road. We could find no trace of it farther on, and at 9 o'clock the old guide, the man who had "hunted them woods for ten year, and knowed every foot of 'em," called a halt.

We built two big log fires, gathered a cord or so of "night wood," laid down between the fires, and were soon asleep. It was late in October, and the night was cold. We woke up every hour or so, half-frozen, and a good deal hungrier than the wolves that were howling about us. We would get up, replenish the fire, execrate our "luck,' and go to sleep again.

We wore out the night, and in the morning were well-nigh worn out ourselves; but at daylight the old man took his bearings, and we started to hunt—

for our own camp. We had gone two or three miles when we heard voices, and hunting up their owners, found a log-drive. It was now the very witching hour of 9 a. m., and the way we waded into the corn-beef, baked beans, potatoes, and bread that the cook set before us, would have paralyzed an Indian.

After breakfast we asked some questions, and learned that the log-camp we had been looking for was ten or twelve miles away, and our own camp about the same distance in another direction. Moral: Any man is liable to get lost in the woods.

Moral No. 2: Never leave camp without a lunch in your pocket.

If you go out alone and get lost, don't get excited. Keep cool. Sit down and rest awhile. Smoke, if you're a smoker, or lay down and take a nap. If you happen to have a book or paper in your pocket, take it out and read awhile. If it is lunch-time, eat your lunch. Then think awhile. If you are bright, you will have taken your bearings thoroughly before leaving camp. You will have noted the points of the compass and any prominent landmarks in the neighborhood of your camp.

Now clear away the leaves with a stick, and draw a map of the country, so far as you know it, on the ground. Note and trace carefully any roads, trails, or streams in the neighborhood, and the directions in which they run. Remember which side of the stream, the road, or the trail your camp is on. Remember what direction you

started in when you left camp, and, if possible, the various directions in which you have traveled since. Now figure out where this would put you. Figure out, for instance, that if the creek on which your camp is pitched runs from east to west, that if you started north in the morning, and have not since crossed that creek, you must still be north of it, and that, therefore, you must go south to reach it. You may, however, have crossed other creeks since leaving camp. If so, recall how many, and thus you will know how many you must recross before you can reach the one your camp is on. The same as to roads or trails.

Now if your mind is perfectly cool and collected, if you know, or think you know, which way you want to go, strike out. Hold your compass in your hand, and consult it every five minutes, for the impulse to circle, when you are lost, is well-nigh uncontrollable. Don't quarrel with your compass, and imagine it is out of order. If you have provided yourself with a good one, as you should, it is all right, and you must follow its lead.

Before leaving camp you probably agreed with your companions on a signal of distress, to be fired in case anyone should want help; at least you should have done so. Now fire this signal. If none has been agreed on, fire that which is generally understood among hunters, namely, one shot, wait two or three minutes, and then two shots in quick succession; but don't repeat this so often as to shoot away all your cartridges, for you may

be out several days, and in that case may have to depend on your gun for your living.

If night overtakes you before you find camp or anyone finds you, go to work and make a camp. Cut a long pole, with your hunting-knife or hatchet, whichever you carry; lean it up against a large green tree. Now cut some long green boughs, and lean them against this pole, spreading them out on either side, so as to make a comfortable little house. Then build a fire against the root of the tree, so that its heat will be reflected into your house. Gather an abundant supply of wood to use through the long night.

Now if you have brought a lunch with you, eat it. If not, it is to be hoped you have been fortunate enough, at some time during the day, to have killed a grouse, a squirrel, or a rabbit, if nothing larger. If you have a bag of salt in your pocket (and no bright sportsman ever leaves camp without this), you can make a good meal on meat straight. If you have not succeeded in getting a shot, you may have been fortunate enough to have caught a few fish at some brook, since you learned that you were lost (for, of course, you always carry a hook and line in your pocket), and fish straight will taste mighty good, now that you are hungry. If you have failed to procure food of either kind, your lot is indeed a hard one; but you must hope for luck soon after resuming your tramp in the morning. Still, keep up your courage. Don't bemoan your lot, and don't imagine you are never going to find camp, or be found. Make up your mind that you might just as well

be where you are as anywhere; that if you were not here, you might be in a blamed sight worse place; you might be just where you are with a broken leg, or with an arm shot off, and so long as you are sound you are in big luck.

In the morning, get up and go on the even tenor of your way. Keep your head level and your course straight. Don't get excited and go to running. If you do, you are sure to get to circling. Don't wear yourself out with worrying. In short, don't make a condemned fool of yourself.

The chances are that you will soon get out; but, if you don't, what of it? Think of the hundreds of men who designedly live in these woods or mountains, for months at a time, with no other resources than those you have at hand; and you can do it just as well as they, if you only think so. Many a man has got lost and staid lost a week or a month, and come out smiling in the end. Many another has got lost, got scared, excited; has gone to running; has run himself down, and died of starvation and exhaustion, or, when found by his friends, has been a raving maniac. Which will you do? You will undoubtedly show yourself a philosopher, and if you do not find camp or some human being within a day or two, you will start down some watercourse, and follow it till it takes you somewhere. This remedy is infallible. Follow any stream on this continent, and it will conduct you to a settlement sooner or later. This course may necessitate the wading or swimming of some converging

streams, but even this may be better than roaming aimlessly in the woods, and, possibly, traveling from camp or the settlement instead of toward it.

## CHAPTER XIV.

### DON'TS.

Don't carry a revolver on a camping-trip. It is as useless there as an ax in a millinery-store. Man is about the only animal that ever gets hit with it, and he is in constant danger when there is one in his school district. You can do all the shooting necessary with a rifle or shotgun, and are not so likely to bag your friend.

Don't point a gun toward your companion simply because it isn't loaded. If you do, he will be perfectly justifiable in breaking your neck with a club. Don't point a gun toward yourself or anyone else under any circumstances. Always adhere to this rule religiously. Then if you should have an accidental discharge, no harm will be done.

Don't shirk the duties of camp, even though they are laborious and you are tired. Do your full share, and don't lay down till the work is all done.

Don't disagree with your friends just for the sake of an argument. This style of conversation soon becomes tiresome, and in time breeds dislike.

Don't get mad and quarrel with your friends, even though the weather be disagreeable or the trail bad. Keep your temper. Everybody hates a kicker, while a kind word and a smile will often drive away an impending storm.

Don't borrow too much. Everyone gets tired of a man who borrows everything. Carry as many of the little tricks with you as possible. Carry a full toilet-case, with soap, towel, hair-brush, comb, needles, thread, buttons, safety-pins, and all. Carry a full cleaning outfit for your gun and a full line of fishing-tackle. These things cost but little, weigh but a trifle, and it is, or should be, much pleasanter to use your own than to borrow.

Don't neglect your personal appearance simply because you are in the woods. Be just as cleanly in your habits as if at home. Keep your hands and face clean, unless you have to keep them painted as a protection against mosquitoes. I once started on a long hunting-trip with a man, and after we had gone a few miles I asked him if he had remembered to bring his soap, towels, tooth-brush, etc. He said, "No, I never care a d—n for those things when I'm in camp." I devoutly hoped he would get drowned before we went far, but, alas! he did not. He lived through it, and looked and smelled worse than a nigger when we got home.

Don't wear soiled underclothes. Wash them, or have them washed, as often as you would at home.

Don't get up in the morning and commence cooking breakfast without first washing your hands and face. Don't tramp on your friends' bedding with your muddy boots.

Don't smoke or spit in the tent, if such things are distasteful to any one of your companions.

Don't speak unkindly of any member of the party who happens to be out of hearing, but defend him, kindly and generously, if anyone else assails him.

Don't be a pig about your eating. Be just as courteous at meals in camp as at home.

Don't blow if you happen to kill the largest deer, or the most birds, or if you catch the largest fish. Rather be sorry that your friends have not been as fortunate as yourself.

Don't be displeased if someone else has had better luck hunting or fishing than yourself. Congratulate him heartily, and let him see that you feel what you say.

Don't allow your friend to do all the rowing, while you do all the shooting or fishing. Insist that you do your share of the work, and that he have his share of the fun. It is just as much fun to see your companion handle a fish skillfully, or make a fine shot, as to do it yourself, if you only have a large enough heart to feel that way about it.

Don't be selfish. Be generous, be magnanimous, be kind, be hospitable, be a gentleman—a *sportsman*. It is more blessed to give than to receive, to lend than to borrow, to do for others than to be done for. This is my sermon. Amen.

# CHAPTER XV.

## CHECK-LISTS.

Every sportsman has, when starting on a camping-trip, found more or less difficulty in making up his list of articles to be taken along. Many a man has wrestled for days, and even weeks, with the questions of what to take and what not to take, and then, when he got away from his base of supplies, has found that he has forgotten some needful article, and when he gets ready to go home, finds that he has brought several articles that have not been needed. It is to obviate such difficulties, and to simplify the matter of preparation for camp-life, that the following lists have been made. They will be found to enumerate about everything actually necessary for comfort and convenience, under the conditions named in connection therewith; but items may, of course, be added to, or deducted from, any of them to suit any special conditions, or the individual tastes of those interested. Blank lines have been left at the foot of each list for that purpose. I must again caution the young sportsman against carrying luxuries on a camping-trip; they add to the expense, care, and labor of the trip, and a little self-denial will enable you to be just as comfortable without as you would be with them.

For a larger or smaller number of persons, or

for longer or shorter trips than indicated at the head of these lists, the requisite quantity of supplies may, of course, be determined by subtracting or multiplying. For high northern, or low southern latitudes, and for mid-summer or mid-winter trips in any latitude, the quantity of clothing and bedding will, of course, be varied in the judgment of the party outfitting, the other supplies and equipments being as nearly correct for either case as any general list can be made.

For winter outings, or for summer or fall, in timbered countries, it will generally be found necessary to carry grain for your horses. In summer or autumn, on the plains or in the mountains, they can usually live well on grass, if not worked too hard. En route to the hunting-grounds, you will generally be able to buy feed of ranchmen as cheaply as at the railroad, and save transportation. Your guide, packer, or teamster will be able to advise you on these points.

When preparing for your trip, check off each item on the list you have chosen as you procure and pack it, so that you may know when your outfit is complete.

### CHECK-LISTS OF ARTICLES CONSTITUTING CAMP OUTFITS.

With reference to the first of the following lists, it may be noted that a strong man can carry fifty pounds ten or fifteen miles a day, comfortably, when accustomed to it. If traveling by canoe, the only addition necessary to make to the loads, in case of portages, would be the canoe

and paddles. If no long portages are to be made, a photograph camera should be taken along, and a few other luxuries may be added to the list.

The total weight of such articles, enumerated in the second list, as are to be carried on the pack-animals, is about 320 pounds, or 160 pounds to each animal. With these loads they will travel, comfortably, twenty to thirty-five miles a day. As the provisions and cartridges are used up, skins, heads, or other trophies may be added to the loads in their stead. No animal should be allowed to carry more than 250 pounds, and small ones not more than 150 to 200. Overloading is cruel, and is nearly sure to cause sore backs.

If more than one pack-animal to each man is provided, then a folding boat, folding cots, chairs, and even a table, may be carried. A sheet-iron cook-stove may be taken, but adds greatly to the labor of packing and but little to the comfort or convenience of the party. For a larger or smaller party, or for a longer or shorter outing, the requisite quantity of supplies may be determined by multiplication or subtraction.

The dotted lines are intended to hold memoranda of any articles that it may be deemed necessary to add in special cases.

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Duplicate copies of these lists may be obtained by inclosing a two-cent stamp to G. O. Shields, 148 Monroe Street, Chicago.

SUPPLIES FOR TWO MEN FOR A TEN-DAYS' TRIP ON FOOT.

10 pounds hard bread.
14 pounds bacon.
3 pounds dried apples or peaches.
2 pounds salt.
3 pounds sugar.
2 pounds coffee, roasted and ground,—or,
½ pound tea.
1 sleeping bag, or blankets.
2 rifles or guns.
100 cartridges.
2 fishing rods.
2 reels.
Hooks, lines, flies, reels, etc.
2 belts and hunting knives.
2 pocket knives.
1 tent.
2 pack straps.
2 suits extra underwear, in bags.
4 pairs socks.
2 rubber coats.
2 compasses.
2 watches.
1 camp kettle.
1 frying pan.
1 wire broiler.
1 stew pan.
1 coffee pot.
2 tin plates.
2 spoons.
2 tin cups.
1 dish cloth.
2 pounds tobacco.
2 pipes.
1 map.
300 matches.
2 water-proof match boxes.
2 ounces insect lotion.
2 cakes soap.
2 towels.
2 tooth brushes.
Supply of small change.

Total weight about 90 pounds.

It is possible to curtail this list slightly, but not without some sacrifice of comfort.

SUPPLIES FOR TWO MEN FOR TEN DAYS, TRAVELING WITH TWO SADDLE-HORSES AND TWO PACK-HORSES, SUMMER OR FALL.

2 saddle horses.
2 pack horses.
2 riding saddles.
2 pack saddles.
2 bridles.
4 saddle blankets.
4 picket ropes.
2 sling ropes.
2 lash ropes.
2 cinches.
2 manteaus.
50 feet quarter-inch rope.
50 feet half-inch rope.
2 gun slings.
2 rifles or guns.
200 cartridges.
2 cleaning outfits for guns.
1 small can of oil.
2 belts.
2 hunting knives.
2 skinning knives.
2 pocket knives.
2 steels.
1 map.
2 compasses.
2 watches.
2 pack straps.
2 prs. goggles or smoked glasses.
2 pairs ear muffs.
1 photograph camera.
3 dozen celluloid plates.
2 fishing rods.
2 reels and lines.
12 bait hooks, assorted sizes.
12 flies, assorted colors.
2 sleeping bags, or
3 pairs heavy wool blankets.
2 pillows.
1 tent.
2 sheets, canvas.
2 suits heavy woolen clothes.
4 heavy woolen undershirts.
4 pairs heavy woolen drawers.
4 heavy woolen outside shirts.
6 pairs heavy woolen socks.
2 light felt hats.
2 pairs buckskin gloves.
2 rubber coats.
2 pairs rubber hip boots.
2 pairs heavy leather shoes.
2 bags to carry clothing in.
4 pairs buckskin moccasins.
1 camp kettle.
Stamped envelopes and paper.
1 frying pan.
1 wire broiler.
1 stew pan.
1 coffee pot.
2 tin plates.
2 spoons.
2 knives.
2 forks.
2 tin cups.
2 dish cloths.
1 box matches.
2 water-proof pocket match boxes.
20 pounds flour, or
15 pounds hard bread.
14 pounds bacon.
3 lbs. dried apples or peaches.
3 pounds oat or rye meal.
3 pounds beans.
3 pounds rice.
2 pounds salt.
¼ pound pepper.
3 pounds sugar.
2 lbs. roasted and ground coffee, or ½ pound tea.
2 pounds desiccated vegetables.
2 pounds tobacco.
2 pipes.
2 toilet cases, each containing soap, towels, tooth-brush, needles, thread, buttons, safety-pins, and other small articles.
1 kit tools and materials for repairing camp equipage, etc.
4 horse shoes.
1 pound horse nails.
2 pounds powdered alum, for curing skins.
Supply of small change.

SUPPLIES FOR TWO MEN FOR TEN DAYS, TRAVELING BY TEAM, SUMMER OR FALL.

1 team and its equipment.
50 feet quarter-inch rope.
50 feet half-inch rope.
2 rifles or guns.
2 gun slings.
200 cartridges.
2 cleaning outfits for guns.
1 small can of oil " "
2 belts.
2 hunting knives.
2 skinning knives.
2 pocket knives.
2 steels.
2 compasses.
2 watches.
2 pack straps.
1 map.
2 prs. goggles or smoked glasses.
Stamped envelopes and paper.
2 pairs ear muffs.
1 photograph camera.
24 celluloid plates.
2 fishing rods.
2 reels and lines.
12 bait hooks, assorted sizes.
12 flies, assorted colors.
2 sleeping bags, or
4 pairs heavy wool blankets.
2 mattresses, or
2 folding cot beds.
2 pillows.
1 tent.
1 camp cooking stove.
2 sheets, canvas, 4 x 8 feet.
1 folding camp table.
2 folding camp chairs.
1 hammock.
2 suits heavy woolen clothes.
4 heavy woolen undershirts.
4 pairs heavy woolen drawers.
4 heavy woolen outside shirts.
6 pairs heavy woolen socks.
2 light felt hats.
2 pairs buckskin gloves.
2 rubber coats.
2 pairs rubber hip boots.
2 pairs heavy leather shoes.
4 pairs moccasins.
2 bags to carry clothing in.
1 folding canvas boat.
1 camp kettle.
1 frying pan.
1 wire broiler.
1 stew pan.
1 bread pan.
1 coffee pot.
1 Dutch oven.
2 tin plates.
1 folding rubber bucket.
2 spoons.
2 knives.
2 forks.
2 tin cups.
2 dish cloths.
1 bar laundry soap.
1 box matches.
2 waterproof pocket match boxes.
20 pounds flour, or
15 pounds hard bread.
14 pounds bacon.
2 pounds dried apples.
2 pounds dried peaches.
2 pounds dried apricots.
3 pounds oat or rye meal.
2 pounds beans.
2 pounds rice.
5 pounds salt.
¼ pound pepper.
3 pounds sugar.
2 pounds roasted and ground coffee, or
½ pound tea.
25 pounds potatoes.
2 pounds tobacco.
2 pipes.
2 toilet cases, each containing soap, towels, tooth brush, hair brush, needles, thread, buttons, safety pins, etc.
1 kit tools and materials for repairing wagon, camp equipage, etc.
4 horse shoes.
25 horse nails.
2 pounds powdered alum for curing skins.
Supply of small change.

I have employed at different times several of the men whose names and post-office addresses are given below, and have found them skillful guides, well acquainted with the sections of the country in which they live, and who can be relied upon to conduct visiting sportsmen to the best game ranges and fishing waters. Those whom I do not know personally are recommended to me as being faithful and capable guides.

| P. O. ADDRESS. | NAME. | RATES PER DAY. For Guide. | For Saddle Animal. | For Pack Animal | For Team & Driver. |
|---|---|---|---|---|---|
| Aitken, Minn | Wm. Smith | $3 00 to 5.00 | ..... | ..... | $5.00 |
| | A. Kempon | | | | |
| | C. C. Sutton | | | | |
| | J. Lyons | | | | |
| Allerdice, Mont | Vic. Smith | 4.00 | $2 00 | $1.00 | ..... |
| | Dick Rock | | | | |
| Brainerd, Minn | *J. C. Rosser | ..... | ..... | ..... | 4.00 |
| | *Geo. A. Keene | ..... | ..... | ..... | ..... |
| Big Timber, Mont | B. T. Rogers | 5.00 | 3.00 | 1.00 | 6.00 |
| Bozeman, Mont | *Walter Cooper | ..... | 2.00 | 1.50 | 4.00 |
| | Ira Dodge | 5.00 to 6.00 including horse. | 1.00 | 1.00 | ..... |
| | E. W. Robbins | | | | |
| | Jas. Fisher | | | | |
| | Chas. Williams | | | | |
| | Fred Veo | | | | |
| | Nels. Catlin | | | | |
| | Jack Beam | | | | |
| Billings, Mont | H. D. Claflin | 3.00 to 4.00 | 1.00 to 3.00 | 1.00 to 3.00 | 4.00 |
| | Joe Cochran | | | | |
| | Ed. Newman | | | | |
| Como, Mont | F. Overterf | 5.00 | 2.00 | 1.00 | ..... |
| Dawson, N. Dak | J. J. Gookey | ..... | ..... | ..... | 5.00 |
| | L. C. Pettibone | 2.00 | ..... | ..... | 4.00 |
| | Philip Devore | 2 00 | ..... | ..... | 4.00 |
| | F. H. Benjamin | 2.00 | ..... | ..... | 4.00 |
| Dickinson, Dak | Jno. Hanley | 2.00 | 1.00 | ..... | 4.00 |
| | Grant Chase | 2.00 | 1.00 | ..... | 4.00 |
| | J. W. Grueschaus | 2.00 | 1.00 | ..... | 4.00 |
| Detroit, Minn | E. Haskins | 2.00 | ..... | ..... | ..... |
| | G. Learman | 2 00 | ..... | ..... | 5.00 |
| | J. B. Hilyar | 2.00 | ..... | ..... | ..... |
| | Whipple & Spicer | ..... | ..... | ..... | 5.00 |
| Glendive, Mont | J. H. Ray | 3.00 | 3.00 | 2.00 | 5.00 |
| Grantsdale, Mont | H. Ridenour | 4 00 | 2.00 | 1.00 | ..... |
| Hope, Idaho | J. S. Horning | 5.00 | 5.00 | 5.00 | ..... |
| Horse Plains, Mont | *A. A. Metcalf | ..... | 1.00 | 1.00 | 4.00 |
| | *J. A. McGowan | ..... | 1.00 | 1.00 | 4.00 |
| Lake Park, Minn | E. G. Marchant | ..... | ..... | ..... | 5.00 |
| Livingston, Mont | *W. F. Sheard | ..... | 2.00 | 1.50 | 4.00 |
| | Wittich Bros | 5.00 | 1.00 | 1.00 | 5.00 |

| P. O. ADDRESS. | NAME. | RATES PER DAY. For Guide. | For Saddle Animal. | For Pack Animal. | For Team & Driver. |
|---|---|---|---|---|---|
| Lyon, Mont | M. P. Dunham | $5 00 | ..... | $1.50 | ..... |
| Medora, N. Dak | Howard Eaton | 2.00 | $2.00 | 2.00 | $4.00 |
| | Chas. Eaton | 2.00 | 2.00 | 2.00 | 4.00 |
| Mingusville, Mont | Isander Nollitt | 2.00 | 2.00 | 1.50 | 3 00 |
| | Jas. T. Tarbell | 2.00 | 2.00 | 1.50 | 3.00 |
| Miles City, Mont | *L. A. Huffman | ..... | 2.00 | 1.50 | 4.00 |
| | Jas. McNanny | 5 00 | 2.00 | 1.00 | 4 00 |
| Missoula, Mont | A. Plummer | 5.00 | 2 00 | 1.00 | 4 00 |
| Osooyas Lake, B. C. | Frank Richter | 3.00 | 2.00 | 1.00 | ..... |
| Perham, Minn | *L. E. Davidson | ..... | ..... | ..... | 5.00 |
| Richardton, N. Dak | J. S. White | ..... | ..... | ..... | 4.00 |
| Ruby City, Wash | *J. A. Loomis | ..... | 2.00 | 1.00 | ..... |
| Steele, N. Dak | C. G. Watkins | ..... | ..... | ..... | 3.50 |
| | G. W. Grimshaw | ..... | ..... | ..... | 3 50 |
| Sand Point, Idaho | Henry Baldwin | 4.00 | 1.00 | 1.00 | ..... |
| Stevensville, Mont | F. J. Wheeler | ..... | 2.00 | 1 00 | ..... |
| Seattle, Wash | *W. A. Perry | ..... | 2.00 | 1.00 | 4 00 |
| Thetis, Wash | Orrin Belknap | 5.00 | 2.00 | 1.00 | 4.00 |
| Wisdom, Mont | Jas. Rasor | 3.00 | 2.00 | 1.00 | ..... |

* Not professional guides, but gentlemen sportsmen who are well informed as to the game and fishing in their neighborhoods, and who always take pleasure in giving visiting sportsmen all necessary points, assisting them in procuring guides, outfits, etc.

# CHAPTER XVI.

## CAMP COOKERY.

By Col. J. Fry Lawrence.

"*Dum vivimus, vivamus,*" is one of the good old sayings that animated the souls of the ancients as well as of the present age, and which, if followed in a rational way, will doubtless add many years to a man's life. Liberally translated, it means that we may as well possess ourselves of all of the good things that Nature has so lavishly bestowed upon us, rather than be satisfied with the husks and crusts of every-day life. In other words, it is best to make a study of those points that conduce to our pleasure and happiness in all of our surroundings, even if these points lead to the culinary department of a *camp-life.*

Who will deny that there is magical music in these words? Camp-life, in its general acceptation, lifts us, Monte Cristo like, into an elevated atmosphere, far above general events, and enables us to float, in a dreamy, hazy flood of real and anticipated pleasure, which, although often accompanied with hardship and danger, always bears its charm; and a bed of straw or pine-boughs, in camp, is as soft and refreshing as one of roses or of down at home. We love to linger and dwell upon the recollections of our term in camp, and to talk over and over again the delights enjoyed. It can not always be painted as of a *dolce far*

*niente*, a life unalloyed and untainted with vexation and danger, for the many manly darings and escapes upon flood and field are themes worthy of a poet's or a novelist's pen; are enjoyed by old and young, king and peasant, and until the end of time will always be thus. The camp-fire, the after-supper pipe, the cool spring water, the minty quaff, the fizz of the Amber, the talk-over of the day's events, the golden sparks from the wooden fire, the chirp of the whip-poor-will, or the howl of the wolf, the whistling of the mallard's wing, or the leap of the salmon as he takes his evening sport—all have their resting-place in our memory. The tame present sinks into forgetfulness, and our mind revels only in the dreams of the past. Is not this true to the letter?

My object in writing here is not to amuse, but to try and impart to the reader some of the rules of camp-cooking that are necessary to health, to pleasing the taste, and thus to the full enjoyment of his outing. In preparing the many "tid-bits" that usually abound in the hunter's and angler's camp, a practical knowledge of cookery is essential. This I shall try to impart, leaving unnoticed all the intricate dishes that require the skill of a scientific and artistic cook.

As many young men, who have never been trained in cookery of any class, go into camp and attempt to live on food of their own preparing, I deem it well to begin at the bottom, and to give directions for the preparation of the most common, every-day dishes as well as the more delicate ones.

In the case of many of the following recipes, it is assumed that you are camping in a settled country, where milk, butter, eggs, etc., can be had, or that your larder is well stocked with the usual list that goes to make up a camper's outfit.

To begin with, it must be settled from the start that absolute cleanliness of premises, and of vessels used in cooking, must be the rule, health and pleasure demanding this.

### COFFEE.

Scald your coffee-pot well after each meal, for purification. Grind your coffee moderately fine, and allow one tablespoon heaping full of ground coffee to each pint of water. If not strong enough to suit your taste and that of your friends, add more. If your party requires two quarts of coffee, place in your coffee-pot three quarts to start with, thus allowing for the evaporation and boiling down. First boil the water, then set the pot near the fire, put in your coffee, let it simmer and boil for thirty minutes on hot ashes and coals, and then set aside, close to the fire to keep hot until your meal is ready. Clarify by dropping in the white and shell of a raw egg, if you have it. If not, a third of a cup of cold water poured in will answer the same purpose.

### TEA.

Place your tea-pot *close* to the fire, but not on it. Allow one heaping teaspoonful of tea for each person. Place in pot, and pour in *boiling* water in sufficient quantity; cover the top securely to retain the heat and aroma, and let it draw for

twenty or thirty minutes. It is good either hot or cold.

### CORN OR EGG BREAD.

Mix a sufficient quantity of meal in a tin pan or other vessel that will hold water; salt to taste; put in a piece of lard or bacon grease; add two or three raw eggs, pour on *boiling water*, and mix to a thick and stiff batter. Melt a little grease in a Dutch oven, pour in the batter, and cook to a light brown, with coals and hot ashes under the oven, and hot coals of fire on top of the lid. It is well to heat your lid on the fire while you are mixing, but not hot enough to burn the bread. It is also well not to put in the raw eggs until you have made the batter with the boiling water and meal; then beat in the eggs with a spoon, otherwise the eggs would be literally cooked, and would not mix. You can also fry the batter in a frying-pan, the pan being moistened with lard or a bacon-rind. Brown on both sides, and eat hot, with plenty of butter.

### BISCUITS.

Take two pints of flour, add a teaspoonful of salt, one of yeast (quick), and a lump of lard about the size of an egg. Mix flour, lard, and salt well by working the lard into the flour with your fingers. Pour in *gradually* enough tepid or cold water to mix into a stiff dough, work it well with the palms of both hands until all is pliable and thoroughly mixed, then make into the usual sized biscuits; stick the prongs of a fork three times into each one, and bake in a Dutch oven or stove. This will give you good beaten biscuits.

It is not necessary to put in any yeast if you want purely beaten biscuits, or if you use the patent self-raising flour. Remember, always, that to bake in an oven you must have the heat on top as well as under the oven.

### TO ROAST MEATS IN A DUTCH OVEN.

Put about one inch of water in oven, and season with salt and pepper, so as to have a gravy for basting the meat while cooking, thus preventing its becoming too dry. Make a mop by tying a clean rag to the end of a stick; remove the lid frequently, and baste the roast with the gravy. When done, remove the meat onto a dish; put into the gravy a pinch of flour to thicken, and pour over the roast. If your roast is thick or tough, parboil in camp-kettle from thirty minutes to an hour before placing in the oven; then roast to a nice brown. Birds and small game may be thus baked; but put very little water in with them, and add a little lard to the gravy. Baste as above.

It is a settled fact among good eaters that game and fish broiled is preferable to that fried; but in many instances the latter mode is followed, as the easier and more convenient of the two. If you are to fry your meats, be sure to remember that the lard or butter, whichever is used, must be, as it were, red-hot, thus preventing the absorbing and soaking in of too much grease, which ruins the health and spoils the flavor of the dish. It is a well-known fact that as soon as the game touches the boiling lard an incrustation is formed,

which is impenetrable to the grease, and the basting of butter, pepper, and salt is all that is required.

### BROILING VENISON STEAK, CHOPS, OR SMALL GAME.

Build a good log fire, and let it burn down to a bed of coals, so that there will be no smoke. Cut your steak or chops almost one inch thick, and season with pepper and salt. Place between the bars of your broiler, and place on the red-hot coals. Broil quickly until rare, or well done, as you desire, frequently turning the broiler from one side to the other, so that the meat will not have time to char. If a little charred, scrape with a knife, place on hot dish, season with salt, pepper, and butter, and serve while hot.

### BAKING FOWLS OR FISH IN CLAY.

Mix water and clay with your fingers into a stiff mud, and work until it is putty-like. Roll it out with a bottle to a half-inch in thickness, and large enough to entirely envelop the bird or fish. *Draw* your bird, wash, salt, and pepper inside, but leave the feathers on. Inclose it in this cake of mud, and smooth over the seams with your fingers. Dig a small hole in the ground in the edge of a wood-fire, place it in, and cover with hot ashes first; on the top of the hot ashes place live coals; replenish the coals now and then, and allow it to cook from one to two hours, according to age or size. When removed, you will find the clay cooked like potter's ware. Break the clay, and the feathers will come with it, thus leaving

the bird clean and white. Baste with butter, and eat while hot. Clean or remove entrails of a fish, wash, and season with salt and pepper; but leave the scales on, and treat as above. If not convenient to roll the clay out as above, it may be mixed thinner, and plastered into the feathers or scales.

### STEWS OF FOWLS OR OTHER SMALL GAME.

Joint or cut up your game into small pieces, and place in a skillet, sauce-pan, or camp-kettle, according to quantity to be served. Add a couple of slices of breakfast bacon cut thin, a few raw onions peeled and cut up, pepper and salt to taste. If you have any red pepper in the pod, throw in half a pod to season. Pour in hot water until you have covered the meat with about two inches of water on top; put the lid on, and simmer slowly until the water has boiled down, say one-half, or until it becomes thick or milky from the juices extracted from the game. If it is too thin to be palatable, thicken with grated crackers, or a paste of water and flour, mixed in a tin cup and poured into the stew. Stew this dish as directed, and you will have a sweet morsel of game and gravy to eat with your bread or hard-tack.

### TO MAKE A COMMON FISH PALATABLE.

Frequently the rains flood the streams so that you can not catch the game fishes, and must do the best you can with those you can get. Take a five or six pound cat or perch, clean and wash well, wrap in a cloth or towel, and boil until thoroughly done. Set aside in a dish to cool. Then pick or cut off all the meat, being careful to

leave no bones. With a sharp knife and fork, cut into small pieces, as if for a salad. Break in two or three fresh eggs, a little grated crackers or flour to make stick together, season with butter, pepper, and salt, stir and mix well, and, in cakes about the size of an ordinary tea biscuit, fry in hot lard until brown on both sides. Eat hot. You will like it.

### A BONY FISH.

Scale, cut off the head, and with a sharp knife cut on both sides deep gashes about a quarter of an inch apart; rub in corn-meal, salt and pepper, and fry to a light brown in hot lard. You will find the fibrous bones cooked to crisp, and the meat excellent.

### SHIRRED EGGS.

Secure cream from a farm-house. Take about two tablespoonfuls, and place in saucer, for shirring two eggs; set on stove or moderately hot ashes and coals until eggs are done firm. Season with butter, salt, and pepper, and mix well.

### POACHED EGGS.

Toast two pieces of bread to a light brown, butter, and lay on a plate. Poach your eggs in boiling *milk*, enough to float them, and when congealed dip carefully out, place one egg on each piece of toast, and pour enough boiled milk over all to moisten the toast, and season with salt, pepper, and butter. This, of course, is the ration for each member of your party.

### POTATOES WITH THE JACKETS ON.

Place in camp-kettle and pour on boiling water. Boil slowly until you can stick a fork through

them with ease. Peel while hot, mash into a paste, season with butter, pepper, and salt, or with milk or cream, and eat hot.

### SARATOGA CHIPS.

Have a spider half-full of boiling lard; peel and cut the potatoes as thin as a wafer, and drop into the boiling lard. As soon as they begin to turn a light brown, take them out with a skimmer and place on a dish; season with salt and pepper, and serve hot.

### STEWED POTATOES.

Cut into thick slices, stew in frying-pan, with enough water to cover them, and add two thin slices of breakfast bacon; cover with a tin plate, and cook until potatoes are soft and nearly dry, but stir frequently, to prevent burning or sticking to the bottom of pan; then pour in a half-pint of sweet milk, and stew again until the milk thickens. Add salt and pepper. They are good without the milk, but better with it. A raw onion or two cut into the stewing potatoes gives a flavor that a hungry hunter always enjoys.

### ONIONS.

Onions eaten raw, or fried in just enough lard to keep from burning, are nice for breakfast, and will keep off malaria.

### BAKED BEANS.

Boil the beans for a long time over a brisk bed of coals, or until they are perfectly soft, and settled at the bottom of the vessel. Pour off the water, and let them dry in the vessel by placing

on hot ashes or coals for a few minutes. When perfectly dry, or rather when the water has evaporated, mash into a fine paste, season with pepper and salt, and place in a conical or round shape on a tin plate. Lay two thin slices of breakfast bacon on top, place in Dutch oven, with lid on, and bake until the bacon is done or to a light crust of brown. Have live coals of fire on top of lid. You will then have "Boston Baked Beans" that are good.

### RICE.

Remember that rice swells very much in boiling, and that a teacupful makes a large dish when cooked. Place in camp-kettle, and cover the rice with about two inches of water; boil slowly, or rather simmer, until it is tender, then by a gradually slowing heat let the water evaporate, thus leaving the grains swollen and dry. Eat with pepper, salt, and butter, or with sugar, cream, and grated nutmeg. If any is left over, fry like mush for breakfast, or make rice-cakes, with flour and eggs. If you fry for breakfast, mix a little flour with it to keep it from crumbling while frying.

### DRIED FRUIT.

Stew in a pipkin or double saucepan. Pour in a little more than enough water to cover the fruit, and gently simmer until soft; then season with sugar and spices.

### OATMEAL.

Boil same as dried fruit, until it is thick and perfectly done. Eat with pepper, butter, and salt, or

with sugar, cream or milk, and sprinkled with nutmeg or any other palatable spice.

### SOUP.

Hang your camp-kettle on two forked stakes driven in the ground, with a cross piece on top, out in the open air, and have a cover to keep out ashes and sand or dust that may be blown about by the wind. If you have any fresh lean meat, put in a small piece, after cutting off every particle of fat you can find. After breakfast, build a fire of logs under the kettle, and let the meat boil in an abundance of water for two hours or longer, or until the meat is almost ready to drop to pieces; then add Irish potatoes, onions, cabbage, and carrots, if you have them, all cut up, and simmer until the vegetables are done. While boiling, you must frequently skim from the top every particle of grease that arises, or you will ruin your stomachs. If the vegetables, when done, have thickened the soup sufficiently, well and good; add nothing more, but season with salt and pepper to your taste, and eat hot. If it is not thick enough, mix enough flour and water, in a tin cup, to the consistency of molasses, and pour slowly into the soup, stirring with a spoon as you pour. Let it boil for about three or four minutes longer, and it will be done. If the meat is not boiled to shreds, add more water for the next day's soup, and thicken as above, and it will be better than on the first day. Good soup may be made with bones, crushed with a hatchet and boiled for a long time, or with vegetables alone, thickened and seasoned.

When you make soft-shell turtle soup, cut all of the tender rim of the shell into tiny pieces, and boil with the soup. The rim will become as tender as calf-foot jelly, and very palatable. Canned tomatoes make a nice soup. You can also make good soup with a pair of smooth pebbles, if you only know how to season and thicken. A pod of red pepper adds greatly, if you don't put too much in and overheat it.

### A GOOD USE FOR STALE BREAD.

Soak over night in milk or water, milk preferred. Beat with a spoon to a soft batter, stir in a little grated cracker or flour to make it stick, stir in enough melted lard and salt, and fry in small cakes to a light brown. Eat hot, and with butter.

### "PÂTÉ DE FOIE GRAS."

Should you be deer-hunting, take the milt of the deer, stick it full of holes with a hard-wood sprit whittled to a sharp point; then take pepper, salt, and flour mixed together, and rub well these holes. Fold up in a thick covering of wet paper, and dig a hole, of sufficient depth to receive it, in the ashes of your camp-fire. Place in, and cover up with hot ashes, coals, and dirt, and let it remain subject to the heat until morning. Eat hot, and with butter, and you will have a fair sample of the great *Pâté de foie gras;* it is *par excellence.*

### ANOTHER.

Save the livers of your game; boil until well done; take out and mash with your table-knife into a paste, throwing out the stringy parts; sea-

son highly with butter, pepper, and salt, and set aside in a cup to settle. Eat cold with your small game, or spread on cold bread.

### WELSH RAREBIT.

Toast several pieces of bread to a light brown; butter, and place on a dish. Melt your cheese in a skillet or frying-pan until it runs freely, and then thin the cheese by stirring in, briskly, enough of any good ale, brown stout, or even common beer, to reduce the mass to the consistency of molasses; add a little salt and pepper, and pour over the toast on dish. Don't fear the night, for cheese aids digestion; and the charming and beautiful hostess of the Burnett House, Cincinnati, with many of her lady friends, have for years taken this as an after-theatre lunch, accompanied by fine ales or wine, and none have ever been harmed.

### A SUBSTITUTE FOR ASPARAGUS.

Search the flower-corners for the young and tender sprouts of the poke-berry, as they pop up, asparagus-like, in the spring. Cut off a little under the surface of the ground; scrape off gently the outer skin, tie in bundles, and boil till done. Serve hot, with salt, pepper, and butter.

### A SIMPLE DESSERT.

Pour enough good Bourbon into a tin plate or pan, break two fresh eggs into it, and sprinkle well all over with sugar. Set the whisky on fire, and let burn until the eggs are done. Scratch a little nutmeg over it, and eat hot.

### CRAW-FISH FOR LOBSTERS.

While your men are seining for minnows, have them save you a bucket of craws. When ready

to cook, tear off the extreme end of the tail, which will carry with it the little black string, or entrail; boil whole, with a pinch of salt thrown in. They will turn to a brown or reddish color when done. Peel, and eat as you would a fresh lobster. Have in a saucer a little vinegar, salt, and pepper, and, as you eat, dip into the dressing prepared.

### TO CLARIFY MUDDY WATER.

Sprinkle a pinch of pulverized alum over the water in the bucket, and the sediment will soon settle at the bottom. Then pour off the clear water, and leave the sediment in the original bucket.

### MUSHROOMS.

Whether camping in the spring or fall, keep a steady lookout for these delicious little funguses that Nature has scattered everywhere. Be sure you can tell the fall ones from other fungous growth that may be poisonous, and then go ahead. The cook-books say that a silver spoon or coin placed in the vessel, while stewing, will become of a lead color if there is any poisonous substance there, when, of course, they must be thrown away. The spring mushroom is of sugar-loaf shape, and brown in color, with pitted marks all over above the stems. They are just as savory as the others, and many like them better. For stewing, use cream or milk, seasoning with butter, pepper, and salt. For soup, use milk, and boil slowly for fifteen or twenty minutes. Crumble or crush fine the mushrooms and make soup thick or thin, as you choose, seasoning with pepper

and salt. To fry them, use a very little lard in frying-pan; cook for about five or six minutes, and sprinkle on salt and pepper to taste. While broiling, baste with butter, pepper, and salt. Eat hot. If served raw, season with vinegar, pepper, and salt. To scramble, break up fine and stir in beaten eggs. Stir all the time while cooking.

### FRIED MUSH.

One of the most palatable dishes to be had in camp is made by boiling mush, in the evening, after supper, setting it away, allowing it to congeal or harden, and then, for breakfast, frying in hot lard until brown on both sides. Cut slices, for frying, about as large as your hand and about one inch thick. Eat hot, with butter and salt.

# CHAPTER XVII.

## CAMP HYGIENE, MEDICINE, AND SURGERY.

By Charles Gilbert Davis, M. D.

"Now good digestion wait on appetite,
And health on both."—Macbeth.

Civilization has made such rapid progress during the last fifty years, within the boundaries of the United States and "the forest primeval" has been so invaded by the foot of man, and the varieties of large game so encroached upon and driven into the mountain fastnesses, that hunting, as a profession or as a means of livelihood, has become an uncertain quantity. But man, even with his luxurious environments of the nineteenth century, feels the returning impulses of his barbarous ancestors, and longs once more to join in the chase, to capture, slay and devour.

Whatever pangs of conscience may arise from these destructive tendencies, he quiets by the assurance that he does this for the benefit of his health, or for needed recreation; and we, who have so often yielded to these impulses, are willing to grant that his excuse is far from lacking the foundations of truth.

There is probably no exercise or method of recreation more calculated to recuperate the nervous energies, which have become jaded from worry and care, or a long-continued pressure of professional labor, than to lay aside all thought

of business, flee to the mountain wilds, to the quiet lake, to the salt sea, or to the babbling brook, and live with Nature; to camp under the blue sky, to breathe the sweet, pure air of heaven; hunt and fish, as did our forefathers.

Worry is the rust that corrodes the body and soul. Thousands and tens of thousands of men and women are dying from worry over the affairs connected with the every-day work of life. Thousands of cases of heart disease, brain trouble, nervous disorders, dyspepsia, insomnia, and the breaking down of the various organs of the body, may be traced directly to the interminable grinding in this modern mill of business.

To all such I would say, go away for awhile from your elegant homes, where you have been so long pampered in the lap of luxurious ease; go into the wilds, live in camp, forget your care by allowing the mind to indulge in new channels of thought, and your muscles and nerve-centers to become accustomed to new habits of exercise. When will the world arrive at that state of civilization when men will acknowledge, by their actions, that life is worth living? Why should we sacrifice the best and most precious years of our lives on the altar of Mammon?

Life is worth living only when we are in a condition to enjoy it. We are in a condition to enjoy existence only when the body glows with health. We live, in reality, only when digestion is good, when the circulation is free, and when the blood, in healthful pulsations, goes bounding to the brain, awakening into activity all the nobler

impulses of mind and heart. It is in this condition only that the spirit of man looks out smilingly on surrounding Nature, and, claiming kinship with his Maker, says: "It is good to live." Then let us abandon care for at least two months in every year. Let us go into camp, live with Nature, and grow healthy.

### HOW TO DRESS IN CAMP.

When a lady prepares for a visit or journey, her first question is, usually, "What shall I wear?" In starting on our camping-trip, we find this question confronting us; and, indeed, it is a subject that should engage our earnest attention, for on a proper understanding of it depends much of the success, pleasure, and good health of the trip. Many a man, from city or village, joining a hunting expedition to the mountains or the wilderness, has found, when it was too late, that the pleasure and the profit of his outing was destroyed, owing to his ignorance in not properly providing himself beforehand with suitable garments.

The great danger to novices in camp is their tendency to contract colds during the first few days or weeks of their experience. To prevent this, the entire body should be well protected with woolen under-garments. This suit may be quite light or very heavy, depending upon the season and the temperature of the locality. The entire difference between the winter and summer clothing of the hunter should be made in the underwear. In many of the outfitting stores,

where hunters' goods are sold, will be found coats, pantaloons, and vests made out of substantial wool-lined ducking, which will prove to be very serviceable. During exceedingly cold weather, these may be sufficiently large to admit of another suit of ordinary clothing being worn beneath them; but under most circumstances, when wool-lined and with flannel under-garments, they will prove of sufficient protection without the other suit. It is also well, for comfort, that the limbs should not be too much encumbered with unnecessary clothing.

The color of the suit should be a nut-brown, as this will show less blood-stains and other evidences of wear, and is also less likely to frighten the game.

Always wear a drab soft felt hat. This you may travel in, sleep in, fold and put in your pocket, and even fold its brim and drink from it while on the march, and, if it be of the proper material, it will still remain a good and respectable hat.

Besides the garments mentioned, every man should be provided with a good water-proof coat, either of oil-cloth or rubber. What is known in the Far West as a "slicker" will be found a most excellent form of this coat. When not required for use, it can be folded into a small roll and easily carried in a bundle strapped to the back of the saddle.

### WHAT SHALL WE EAT IN CAMP.

Here, as in all other positions in life, we find this an important question. Good health depends,

largely, upon what we eat, how and when we eat, and how we digest it. The same general laws which govern our selection of food at all times, should be allowed to govern us here. As a general rule, while camping out, taking more physical exercise and deeper inspirations of fresh air, we will find the appetite improved, and be surprised at an increased capacity to consume the good things of the table. This increase of appetite, we find, is often abused, and to such an extent that the digestive organs are overtaxed, and the result is "biliousness."

One of the best remedies for this is, abstemiousness for several days, using little or no animal food. Man is an omnivorous animal, and under general conditions of health there should be a proper mingling of animal and vegetable food in his diet. Many hunting-parties go out, and while in the region of game depend almost entirely for food on what they kill. The result of this is often quite disastrous to many or all the members of the camp. I have seen an entire camp, of eight or ten hunters, all ill for some days at a time, some of them seriously, simply from indulging too freely in fresh game.

Every camp should have in its larder, salt, pepper, sugar, baking-powder, lard, and corn-meal, also eggs and milk when they can be obtained. Owing to the improved methods of canning, all of the desirable fruits and vegetables can be carried into camp in this manner. We may now provide ourselves with pickles, corn, apricots, tomatoes, peas, beans, succotash, etc.

In this list we may find sufficient to satisfy the most delicate taste. It is desirable, always, to have good bread. Many camp-cooks, while possessing much ability in the preparation of various savory dishes, are lacking, apparently, in the qualifications necessary for the production of light and wholesome bread. This is owing, sometimes, to an absence of proper ingredients, and often to bad facilities for baking, but especially to ignorance as to the proper length of time in which to bake bread *well done*.

Taking everything into consideration, corn-bread will often be found much more desirable than wheat-bread. It is much healthier for those engaged in muscular exercise, more easily digested, and more apt to be successfully prepared.

An excellent recipe is the following:

Corn-meal, one quart; salt, one teaspoonful; mix rapidly with boiling water, and stir till it drops lightly from the spoon. This may be baked in an ordinary Dutch oven, or in thin cakes in a frying-pan. Eaten either warm or cold, it will be found by the tired and hungry hunter a sweet and palatable loaf.

If wheat-bread is desired, it is better to use patent self-raising flour; this only requires to be mixed with water, and it makes most delicious bread and biscuit. We may also use the patent self-raising buckwheat, and indulge in the luxury of buckwheat-cakes.

Coffee and tea may be drank by the strong and healthy according to their usual custom; but if you are camping out for your health, if you are

suffering from indigestion, liver, heart, kidney, or nervous trouble, and if you want long nights of refreshing sleep without a dream, drink with your meals hot water. This promotes digestion, stimulates the circulation, and does not obstruct any of the functions of the body.

The habit of indulging in alcoholic beverages, such as wine, beer, whisky, ale, and gin, while recreating in search of health, is ludicrous to one who understands the physiological action of alcohol on the human system.

Many a man has gone on his vacation, fishing or hunting, and returned at the end of the season more depressed than when he started, owing to the ill-health produced by what he has drank.

If you have been in the habit of drinking previously, abandon it while in camp; notice the wonderful improvement in your condition, and you will be tempted to remain a teetotaler as long as you live. If you have never drank before, then why seek to injure your health while you are pretending to improve it?

Alcohol is a poison. It lessens your ability to endure the fatigue of the march; it diminishes your capacity to withstand the cold; it causes you to succumb sooner to the heat of summer; it congests the stomach, obstructs the liver, and retards all of the functions of the body. If you wish to be healthy, have buoyant spirts and a clear conscience, do not drink alcohol in any form.

### LABOR AND REST.

As nearly as possible, regular habits of eating, sleeping, and exercise should be observed. Break-

fast should be taken not later than 7 o'clock. Every camp should be well disciplined, and there should be always a well-understood line of duty marked out for each man. In this way, the duties of camp can be rapidly disposed of, and the willing members will not be imposed upon by the sluggards.

There should be but one cook, and he may have an assistant, but not more than one, for "too many cooks spoil the broth." It should be the duty of these to prepare the meals and remove the spread. One man should have complete charge of the horses, to see that they are well fed and groomed; another member of the party should look to the bedding, and still another may attend to the putting up and taking down of the beds, and other minor camp duties. By following these rules, in a few minutes after breakfast is over we are ready for the march, or for the hunting or fishing expedition, as the case may demand.

If the hunting or fishing trip is to lead us far away from camp, and we are likely to be detained the greater part of the day, then, by all means, lunch must be prepared and taken with us. Too much can not be said against a long day's hunt without food from morning until night. Lunch should be eaten at 1 o'clock, and there should be an hour's rest. Blankets or "slickers" may be thrown upon the ground, so that we may lie at ease; and the horses must be fed, and picketed on the grass.

We return to camp, and the cook invites us to supper at 7 o'clock, and by 8 we are ready to

join the circle, dear to every hunter's heart, that gathers around the evening camp-fire. Here we listen to the bear story, the Indian tale, recount the adventures of the day, and plan for greater deeds to be performed on the morrow. But a better thing than this is, to go to bed, to sleep, and "knit up the raveled sleeve of care." "Balmy slumber, tired Nature's sweet restorer," it is seldom, in this hurrying age, that we get too much of it.

### SHELTER.

In camp, we are supposed, a greater portion of the time, to enjoy all of the hygienic effects of out-door life; still, it is quite necessary that we provide ourselves with protection sufficient to shield us from sudden atmospheric changes and inclement weather.

The common army tent is well adapted to this purpose, and may be sufficiently long to accommodate two, four, or six men.

In selecting a location to pitch the tent, when possible, an open space should be found, where there are no trees or bushes within a few rods. In the dense woods, beneath large trees, the ground is much more damp, and the atmosphere contains more moisture than it does in the parks or open spaces. A tent standing beneath a large pine-tree will, in a few days, become saturated with moisture, and the bedding will show unpleasant symptoms of dampness and mould. Have the tent placed on dry ground, in an open space, and surrounded with a ditch four or five inches deep. The tent may be used to sleep in when the weather

is stormy or very cold, but when the climate is mild, it is much better and healthier to sleep in the open air. The invalid may use the tent, but let the healthy man sleep beneath the star-lit dome of heaven.

### WHAT MEDICINE DO WE NEED.

Man seldom wanders so far in search of health, or finds it in such abundance, but what he has occasion to turn to physic for relief from some real or imaginary ill.

Every camp should be provided with a medicine-chest, containing such articles as are most likely to be required in the ailments of camp-life. This chest may be made 6 inches wide, 10 inches long, and 6 inches deep. It should contain the following articles, well labeled, and separated by corrugated paper to prevent breakage:

No. 1. Anti-malarial pills. Each pill contains:
Quinia, bisulphate, 2 grains;
Ferri Ferrocyanidi, 1 grain..... 100.

No. 2. Fluid Extract of Gelsemium..... 1 ounce.

No. 3. Compound cathartic pills (improved)..... 100.

No. 4. Pond's Extract..... 8 ounces.

No. 5. Vaseline (carbolized)..... 2 ounces.

No. 6. Roller bandages, 2-inch..... 6.

No. 7. Small scissors..... 1 pair.

No. 8. Surgeon's silk..... 1 skein.

No. 9. Surgeon's needles..... 2.

No. 10. Rubber adhesive plaster..... 4 yards.

No. 11. Soap liniment..... 4 ounces.

No. 12. Antipyrin pills (5 grains)..... 100.

No. 13. R. Tinct. Opii. Camph. oz. iii.
Spts. Ammo. Arom., oz. i.
Magnesia (Husband's) oz. i.
Aq. Menth. pap. q drs. iv.
M.
S.—Teaspoonful in water every three hours.

No. 14. Lint..... 2 yards.

In many localities, particularly where there is an abundance of vegetation, malaria abounds, and it does not require much exposure to thoroughly saturate the systems of those who are not acclimated.

In this case, we may use the anti-malarial pill to great advantage, taking one pill every three hours for two days, then omitting for a day and resuming for two days, and so on until all the morbid symptoms have disappeared.

With those not accustomed to camping out, colds are quite frequent. They may be accompanied with sore throat, fullness in the head, cough, or soreness of various parts of the body. For all of these cases, a sovereign remedy is the fluid extract of Gelsemium, marked No. 2 in our list.

Thirty drops of this may be added to half a glass of water, and a teaspoonful of the mixture may be taken every half-hour, or as often as the urgency of the case may require. This seldom fails to break up the most severe cold, if given early in the attack. It will also be found of great relief in those cases of severe sore throat, which so frequently attack those of feeble health, in high altitudes. I can not speak too highly in favor of this remedy in the treatment of rattlesnake bite. I speak from experience, in the observation of a number of cases, when I say that it is the most satisfactory remedy known. It has been the custom, in former years, and is in many localities yet, to give whisky freely in those cases, but the relief is not so quick, or the recov-

ery so rapid, as when Gelsemium is given. We may administer it here in about double the dose we would for a cold, and apply the pure fluid extract, on a saturated piece of lint or linen, directly to the wound. I have also found it to yield satisfactory results in the treatment of stings of bees and other insects, and in poison from the ivy-vine.

In cases of severe neuralgia, neuralgic headache, or toothache, three of the antipyrin pills must be taken. It is better to take them at the time of retiring, and the dose should not be repeated more than twice in twenty-four hours, unless directed by a physician. Rheumatic affections may be much benefited by rubbing well with the soap liniment two or three times a day, and keeping the parts well wrapped in warm flannel.

For diarrhea, dysentery, cholera-morbus, etc., use the prescription No. 13.

For slight burns or contusions, apply well Pond's Extract.

In the treatment of extensive lacerations, cuts, and other wounds, when the tissue is deeply affected, we will have to bring to bear both medical and surgical methods. With a surgeon's needle and silk thread, stitches must be taken a quarter or half an inch apart, sufficiently deep to insure them not giving out, and the parts brought as nearly as possible into their normal position. Then a piece of lint, folded several thicknesses, and well saturated with Pond's Extract, should be applied over the wound, a piece of linen folded and laid over this, and the whole secured in its

place by a bandage, well applied. The wound may be redressed once every day.

In gunshot wounds, clear the orifice of the wound, as well as possible, of foreign substances, and then apply a compress, until such time as a surgeon can be consulted. Do not probe for the ball. If, in any case, there is severe hemorrhage, fold up a piece of lint or linen, an inch or two square, lay it directly on the point of bleeding, and then use a roller bandage, binding it firmly down on the part.

When bones are broken, the fragments or broken ends should be replaced in their normal position, as nearly as possible, and retained there by bandages and compresses. If the fracture is in the arm or leg, several narrow strips of board, well protected with some soft substance, like cotton or wool, should be placed around the limb, and then bound there with strips of adhesive plaster or the roller bandage. In the bones of the arm or forearm, serviceable splints may be secured from the boards of a cigar-box. When a bone becomes dislocated, or "thrown out of joint," it may generally be replaced by pulling upon the limb or affected member. This, however, is generally a very painful operation, and may be much more easily and successfully performed while the patient is under the influence of an anæsthetic, like ether or chloroform.

In all of these surgical cases, when the injury is at all severe, it is well to secure, if possible, the services of a surgeon.

## CHAPTER XVIII.

### THE DIAMOND HITCH; OR, HOW TO LOAD A PACK-HORSE.*

By Frank F. Frisbie.

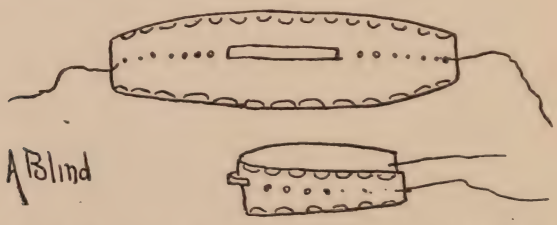
The first thing necessary for packing is a pack-animal of some description. Whether it shall be a mule, burro, or horse, is a question which many must decide for themselves. The burro is a hardy, patient, tough little animal, and is much used in pack-trains where hard work is required; but if one rides horseback, it is a little too slow for ordinary use.

There are "mules and mules," and could one get just such an one as he would wish, it would be superior to the cayuse for packing; but as the chances are so few of getting the mule you want, I would advise you to let mules alone. We have now narrowed our choice down to the horse. To get a pack-horse is easy; to get a good one is another thing. You want a gentle horse, because in packing you have got to get about him in "promiscuous positions." You want a stout horse, and one of good size, so that he may pack a good load. He must not be too large, lest he may be clumsy and not as sure-footed as a smaller horse. The best horse for packing is one which would be

* This article was first published in the *American Field*, and is reprinted here by kind permission of Dr. N. Rowe, Editor and Manager of that paper.

called "chunky," that is, a short-legged, thick-set, round-bodied horse; not so young as to be "skittish," or so old as to be slow; say from six to nine years of age.

Now comes the "outfit." First, a halter to tie or lead your "pack." A hackamore is much used, and easily made; but, for a starter, any good halter will do, either of leather, webbing, or rope, leather preferred, with a good, long rope stale or leading-rope, say twelve or fifteen feet of three-eighths rope.

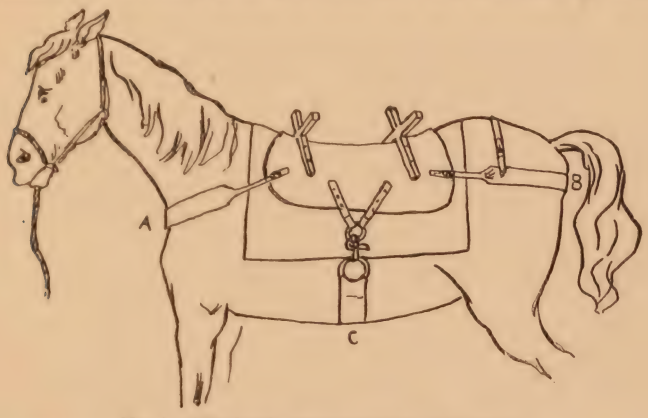



The next thing, in some cases, would be a blind; but I would advise anyone learning packing not to get a horse that needs to be blinded to be packed, until he is adept at packing. However, he may want to know what a blind is. It is made of leather generally, though canvas would do. You hang your blind over your pack-horse's eyes, so he can not see, the loose strings being tied back of his ears.

Now you want a sweat-cloth, made of gunny-sacking, or some such loose material, to put on your horse first; then one, two, or three blankets, according to thickness. Always have plenty of saddle-blankets, for it is easy to make a horse's back sore, but not so easy to cure it afterward.

There should be a square of canvas, about ten-ounce, or of carpet, say three feet six inches, to put on top of blankets, to keep the saddle from wearing them, and also to keep blankets as clean as possible, so they can be used for bedding at night, thus avoiding having to carry so many extra blankets.

Next comes the pack-saddle. There are two kinds. The one most in use for all ordinary work

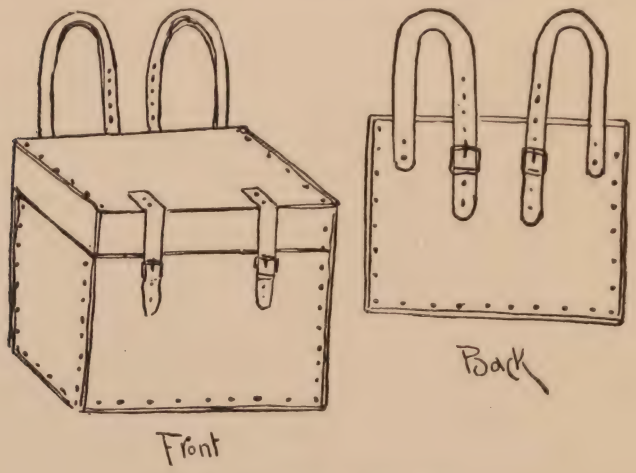



No. 1.—Saw-buck Pack-saddle and Harness.

[A—Breastband with buckle, to prevent saddle slipping back. B—Breeching, to prevent saddle slipping forward, with buckles to adjust for size. C—Cinche.]

is the "saw-buck." The *aparejo* is a saddle much used by professional packers for packing large loads. It is made of leather, in the shape of a rectangular bag. The sides of the bag are held apart by springy sticks, and the bag then stuffed with hay. As our ordinary tourist is not apt to get hold of an *aparejo*, it is hardly worth while to give much space to an accurate description of it. What has been said would enable anyone to tell what one looked like. The every-

day pack-saddle is the saw-buck (see No. 1), though any Western riding-saddle can be used to pack on, and an old tree makes a fair pack-saddle. The "saw-buck" is made of wood—two flat pieces to fit on the horse's back, and cross-pieces bolted to them, crossing each other like the uprights of a saw-buck, hence the name. A good saw-buck pack-saddle should be wider at the back



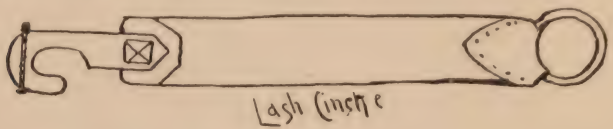

No. 2.—Alforquis, or side-pack.

than front, and the boards should lie flatter, and conform to the shape of the horse's back. It is a good idea to line the boards with sheep-skin, wool side out. This prevents the saddle wearing the blankets. There should be breeching on the saddle to prevent it slipping forward, and a breast-band to prevent backward slipping. It should have a good broad hair or canvas cinche. A good pack-saddle complete can be bought in some parts of the West for $5.

Now we want a pair of *alforquis*, or side-packs. It is more convenient to have these than it is to have to pack up a lot of small truck every day and make side-packs or bundles. You put your small articles in them, buckle them up, and sling them on, thus doing away with sling-ropes. The *alforquis* (pronounced al-for-kis) is made of heavy canvas, corners bound with leather, and riveted with copper rivets, generally 18 x 12 x 20 inches in size; has straps to buckle the covers down, and others by which to hang it to saddle. (See No. 2.) A good pair of *alforquises* can be bought for from $7 to $9, though one might make them a little cheaper; still, it is hardly worth while for one who don't know just what he wants to try it.

We now have our outfit, and the next thing is to utilize it. First we catch our horse, and then saddle him. We are careful to get the blankets on smoothly, and then lift them up with the hand into the crotch of the saddle, so the air may circulate over the horse's back. Into our *alforquis* we put our tea, sugar, condensed milk, and other articles, making them equal in weight, so they will balance when put on the horse. We then lift them up and hang one on each side, passing the straps over the horns of the saddle. On one side-pack we lay the ax, and then spread over the top our tent, which is folded the proper size. The jointed tent-poles are laid on the side opposite the ax. The large water-proof cover, made from either canvas or one of the black cloth covers used to protect horses from the weather, is folded to lay smoothly over this.

After the pack-cover is on, we have use for another part of the pack outfit, the lash rope. This is a rope from thirty to forty feet long, either one-half or five-eighths of an inch thick. This rope is fastened to the lash cinche, which is of



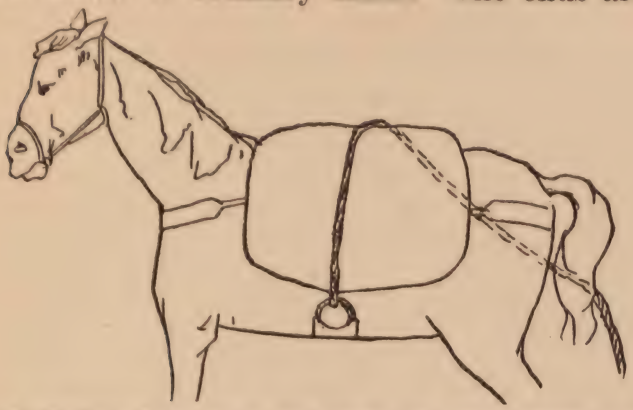

No. 3.—Lash Cinche.

canvas, from four to six inches wide and about thirty inches long. At one end the cinche has a large ring which the rope fastens in, either being tied or spliced. At the other end is a hook, gen-

No. 4.—Rope coiled ready for first throw. Lash cinche on the ground.

erally made of wood, but which can be made of iron. If a saddle is bought complete, the lash

cinche is part of the outfit. Cut No. 3 shows a lash cinche of ordinary make. The ends are of



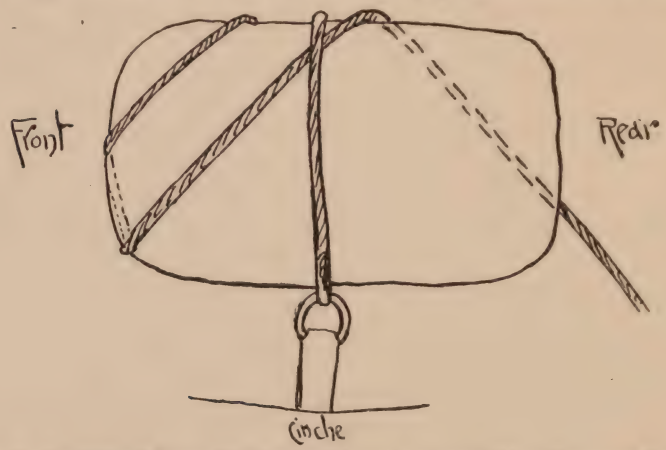
No. 5.—Position of rope after first throw, lash cinche drawn close to horse.

leather, riveted on, and the hook is strengthened by an iron bolt through it, it being lashed on with

No. 6.—The first throw made, ready for the second throw.

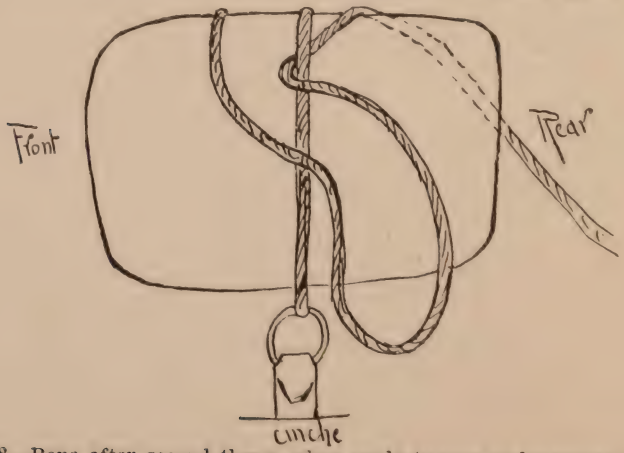
leather thongs. The near-side packer, that is, the person on the side of the horse to his left when he stands facing the same way as the horse, takes

the lash rope in his right hand, neatly coiled up (see No. 4). The cinche he lays on the ground under the horse. When ready, he gives the coil of rope a throw toward the opposite side of the



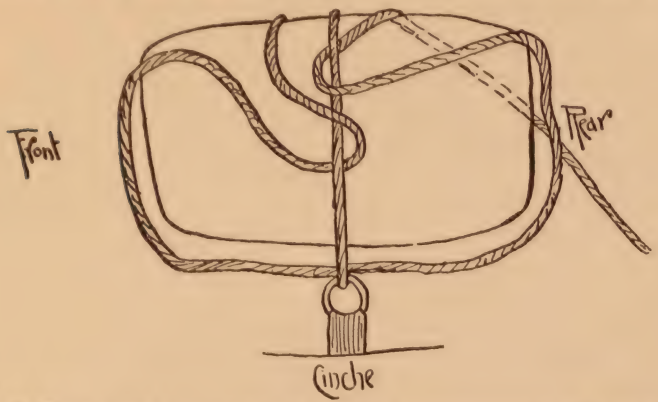

No. 7.—Position of rope after second throw, on near side. The rope from cinche goes over the free rope. Top pack not shown.

horse and to the rear. The rope then lies across the horse from the left shoulder to the right hip



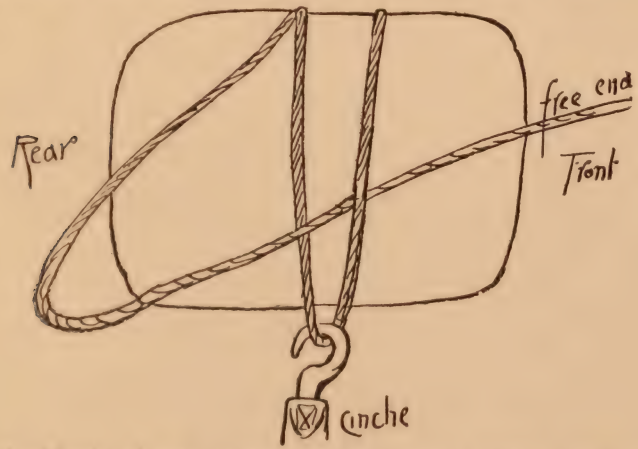

No. 8.—Rope after second throw, when ready to pass under standing rope from lash cinche. Near side.

(see No. 5). The off-side packer now grasps the rope, and pulls it rapidly toward him until he has




No. 9.—Rope passed under standing rope and round corner of pack on near side. Rope shown very slack and low down on pack, so as to be seen easily. Near side.

slack enough, and taking the slack, he forms a loop of it, holding it in his right hand (see No. 6). He now throws this loop over to the near-side

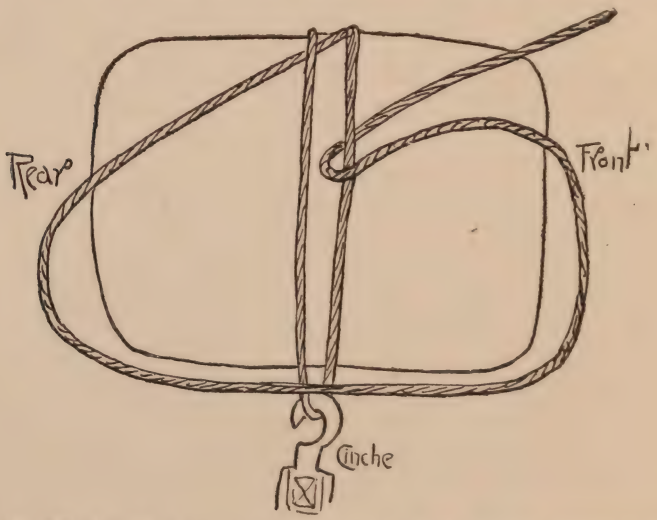



No. 10.—Off-side of pack, showing free end of rope passed through the standing ropes and thrown to rear side.

man, who has in the meantime picked up the

cinche from the ground. He catches the loop, and hooks it into the cinche-hook, drawing the cinche up to the horse's belly.

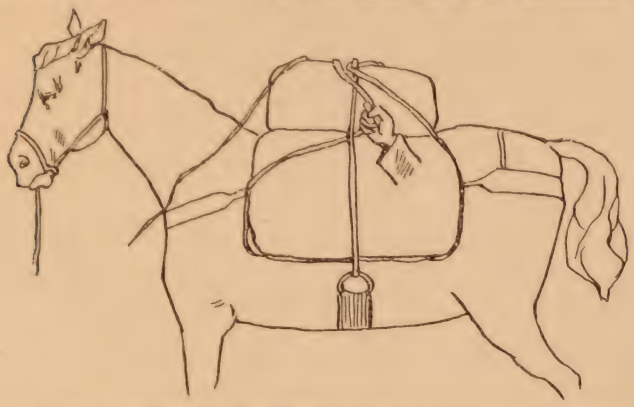
No. 7 shows how rope should look after this is done. The off-side man now takes rope on his side and throws it back, as shown in No. 8, passing it under the standing rope and under the corners of the pack, as in No. 9. The near-side man




No. 11.—Off side of pack, showing free end of rope through standing rope and round the corners of pack; shown very loose and low down.

has now picked up the end of the rope and passed it through the standing ropes. (See No. 10.) He then pulls the rope to him to make a loop, which he passes about the front of the pack. (See No. 11.) The back loop (No. 11) goes about the rear of side-pack. Now we are ready for the pull. The off-side packer grasps the rope coming from the hook, and pulls on it until he can not get any more slack and the

cinche is very tight. The near-side man takes up the slack that comes to him from the off-side, as shown in No. 12. When the near-side man has



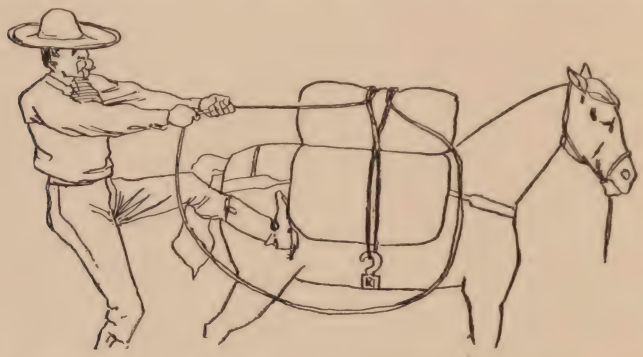
No. 12.—Showing right hand of near-side packer taking up slack on the first pull; ropes loose.

all the slack, he puts the loop about front of pack, and going to rear, pulls on this same rope as shown in No. 13. The off-side man is at the same

No. 13.—Showing position of near-side packer when making the second pull.

time taking in the slack as in No. 14. He then puts his loop about rear of pack, and takes his place as in No. 15, pulling the rope

toward the front. The near-side man takes in slack, and tightens the load as in No. 16. The diamond is now on, and all that remains to do



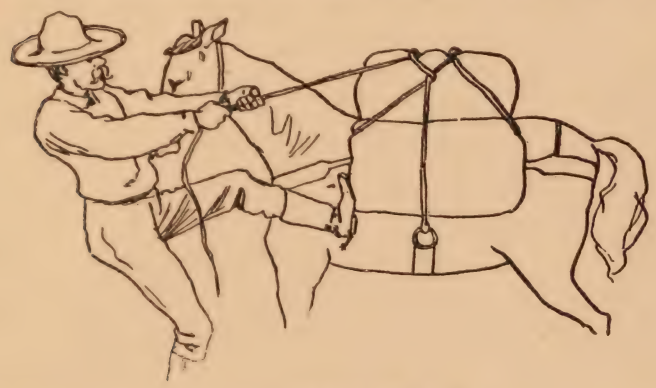
No. 14.—Off-side packer taking up slack on second pull; ropes shown loose.

is to fasten it. This can be done in different ways; much depends upon the length of rope left. If there is rope enough, the near-side man

No. 15.—Off-side packer making third pull.

passes the rope round the pack, following the other rope, and throws the loose end over to the off-side man; he continues to pass rope about pack, if long enough, but if not, he fastens the

rope with a half-hitch either on the standing rope or on a part of the diamond that pulls in the other direction. If he has too much end to fasten on his side, he passes rope back to near-side man, who fastens rope in a like manner. Sizes of packs vary so often that no set rule can be given, but a person soon learns to fasten the rope most advantageously. Our pack is now on, and rope would look, if spread out on the ground, as in No. 17.

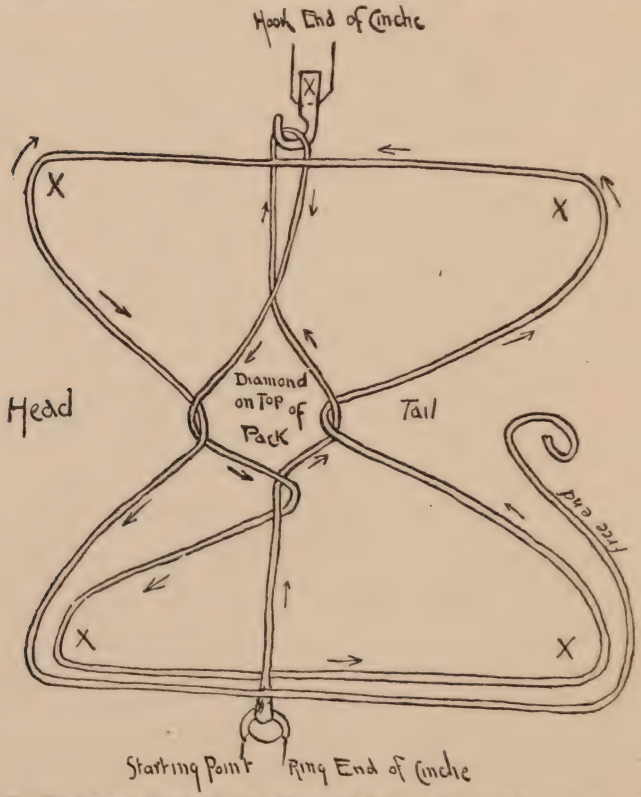


No. 16.—Last pull, near side.

Though our pack is on, our outfit is not, for we have our kitchen yet.

In this instance that consists of: First, a bake-pan, one of the patent roasters which are sold for roasting meats. In this are laid two oval-shaped pans about eighteen inches long, one used for making bread, the other for a wash-basin. These pans nest, and in them are laid the tin plates. This stuff is put in the bottom of the sack, which will be described. Next comes the sheet-iron camp-kettle. In this are packed two smaller tin pails that nest, and the tin cups, the cover of

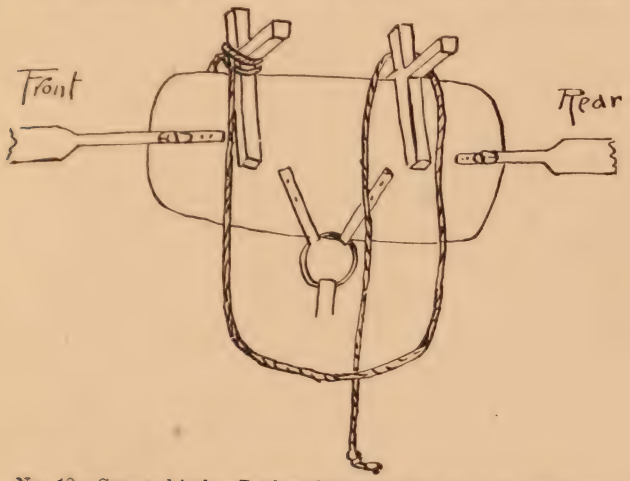
the camp-kettle being tied on. Then the coffee-pot, with any little thing, as a can of condensed milk, or the soap wrapped up in the dish-towel, is put in alongside of the camp-kettle. Two frying-pans, nested, go in on top of the first pans.




No. 17.—Bird's-eye view of the diamond from above. X, corners of the pack.

The bag which held the kitchen was made of strong sail-duck, about four feet long by three feet wide, and at the lower corners are straps and buckles, and about half-way to the mouth on each side another strap and buckle.

When the things are all in, a small rope, about seven feet long, is tied as near the tinware and as tightly as possible. The sack is then lifted on top of the pack, and is generally nearly square in shape. One end of the rope is carried to the ring-end of the cinche, and tied; the other to the hook, and tied. This fastens the sack crossways, and the four straps are buckled into the lash rope in such a manner as to bind the

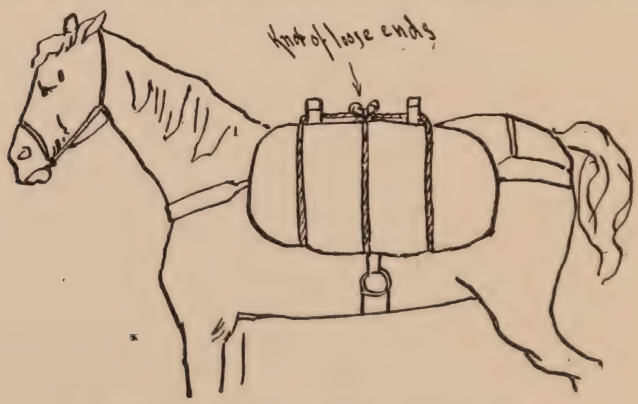



No. 18.—Squaw-hitch. Pack-saddle and sling-rope in position.

sack on tight. This is a much better way to pack tinware than to tie each piece on alone.

In packing our horse we have not had to use the sling-rope, as we used our *alforquis;* but as there are times when one has to use a side-pack and a sling-rope, it may be as well to explain that method, and thus enable our tourist to be independent of his *alforquis.* The sling-rope is about thirty feet long, of quarter or half-inch rope. The easiest sling to put on, and one which does

fairly, is the "squaw-hitch." The first position of ropes is shown in No. 18. The sling-rope is doubled, and at the loop a half-hitch is made about the front cross-trees of saddle. A loop is then formed of each end of the rope and put over saddle so the bight will fall down on each side, the free end of rope on opposite side of saddle from its bight. The side-packs are then lifted up by the packers, and held high up on the horse, while with the other hand the bight is lifted and brought round the pack and over, hooking it over

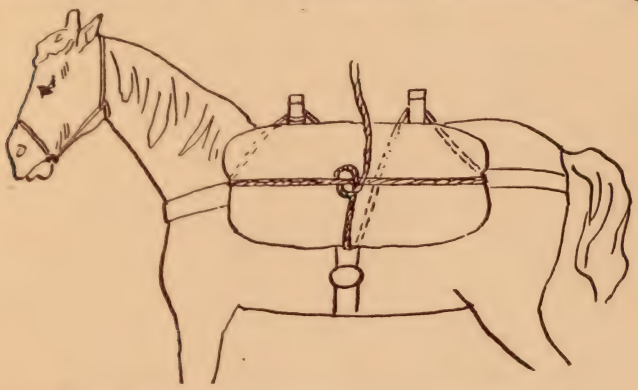



No. 19.—Squaw-hitch used for slinging side-pack on.

the cross-trees. This leaves the packs supported at each end by the rope. The free ends are then drawn down to middle of pack, and brought up and tied, as shown in No. 19. The side-packs should be of equal size and weight, and hang evenly on the horse. If they do not, they will not ride well.

The next hitch is the basket or web-foot hitch. In this the rope is passed around the middle of the sides of the packs and drawn tight, the free

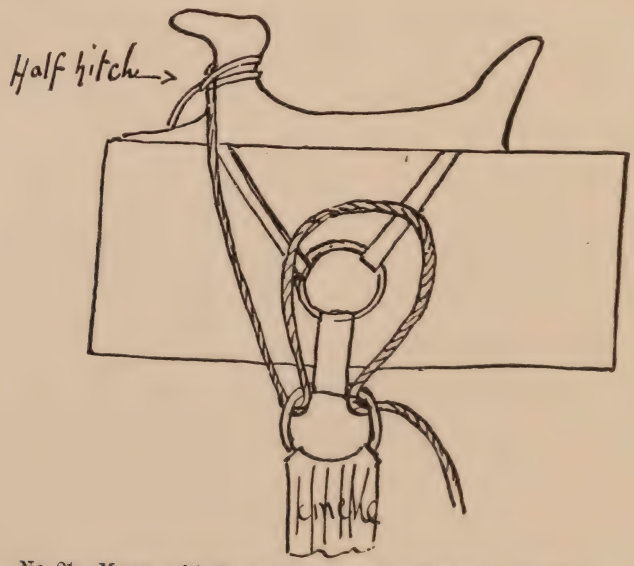
end being brought to the middle and a half-turn taken about rope, as shown in No. 20. The most useful hitch is that known in Idaho as the Mormon hitch. This can be used either on a pack or riding saddle, and for a sling-hitch, or to hold some loads alone. It is the best hitch to put a deer on a riding-saddle with that the writer knows of. A sling-rope is needed, and it is doubled same as in the other hitches. The rope on each side is then carried down and the bight



No. 20.—Basket or web-foot hitch for slinging side-packs.

passed under the cinche-ring and up through it. (See No. 21.) The load, if a bundle of blankets or such things, is put across the saddle lengthwise, and the bight brought over the outside and the free end of rope pulled on till all is taut. The free end is then brought up over middle of the packs, passed from the top down under the rope, running across, and then taken to horn or cross-trees of the saddle, and passed about that. Each free end should go round the horn in opposite directions (see No. 22), so they will tie. Each

man now pulls hard on his rope, and then each takes a turn about the horn, tying the rope together. It will be seen that, as long as the rope don't slip and cinche holds, the pack will stick, and, as the pull is directly on the cinche, it serves to keep the saddle tight. In putting deer on with this hitch, the deer is slung lengthways across the horse.

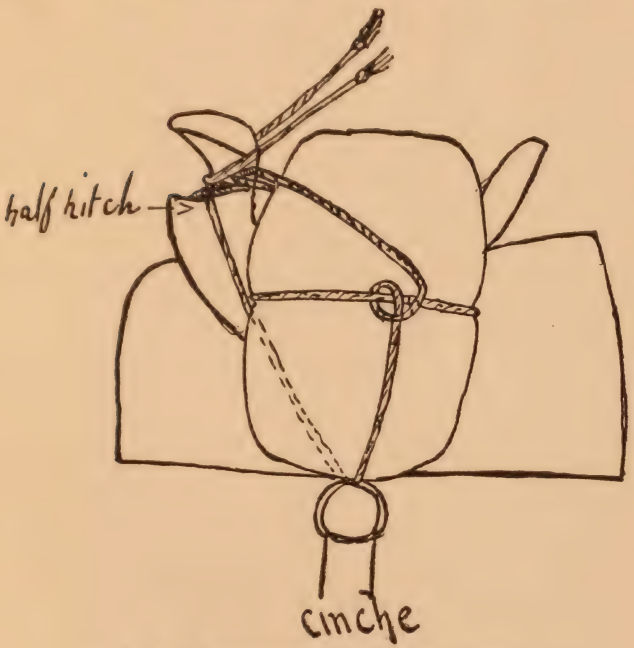



No. 21.—Mormon hitch on riding-tree to pack deer or bundles.

In giving these directions, the writer is aware that he may not give them just as someone else would; but there is only one "diamond hitch" that he has ever seen or heard of, and very little difference is to be found in the way of putting it on. It is the only way that ropes can be put on to hold a load successfully, and if a load is well packed, and the hitch once put on right, it is bound to stay all day. The ropes, of course, will

work loose, but the slack can be taken up without unpacking, and thus keep everything in shape.

To become a first-class packer, one must have experience; but anyone who is given to hunting or knocking about can learn to pack well enough for all practical purposes, and as each day passes some new "wrinkle" will be picked up. While




No. 22.—Mormon hitch, with pack on riding-tree.

it is necessary to go West or to some other region where packing is done to become a packer, it is not necessary to go West or anywhere else to learn to throw the "diamond hitch," and if any reader has a desire to learn this accomplishment, and is at all handy about picking up things, he can do so in the following manner: Get a small

log, two feet long by eight inches in diameter, bore four holes in one side, so that four sticks put in them will make four legs that your log can stand on; or, in other words, make a horse of it. When your horse stands all right, bore four holes in the back, two eight inches from one end, the other two eight inches from those; bore these holes so that pegs put in them will cross each other like the letter X. This makes the cross-pieces of a saw-buck saddle. Get some rags or cloths, roll them up into a bundle eight or ten inches long by four inches in diameter, making three of these bundles. Get a piece of strong twine, say six feet long; this will do for a sling-rope in miniature. Now fasten your sling-rope on the cross-tree of the saddle, as described in regular packing, and take two of your bundles and put them on as side-packs. Lay the third bundle on top, for the top-pack. Get another strong piece of twine, say eight feet long, and on one end fasten a piece of leather one inch broad by six inches in length; this represents the lash cinche. At the end of the leather opposite the string fasten a very large hook (hook and eye). Now take your lash "rope" and put it on your make-believe horse, and pack exactly as shown in the description of the regular packing. If one is fond of puzzles, this will probably prove as good a one as he can find, and after he has solved it he will have the satisfaction of knowing that if he is West, and someone calls him a "tender-foot," he can refute it by simply saying, "I can throw the diamond hitch."

In throwing the diamond, as explained above, it is taken for granted that there are two packers, as there always should be; but sometimes one is caught alone, and has to do all the work himself. This he can do, if not easily, still without much trouble, providing his horse is gentle.

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I thank you for placing on record, in a permanent shape, such a satisfactory account of the battle.

Very truly yours, JOHN GIBBON.

And this from Captain Coolidge:

CAMP PILOT BUTTE, Wyoming, March 17, 1889.

MR. G. O. SHIELDS, Chicago, Ill.

DEAR SIR: I have read with a great deal of interest and pleasure the manuscript of your book, entitled "The Battle of the Big Hole," and as a participant in the tragic affair it describes can cheerfully commend it to all who are interested in obtaining a true history of the Nez Percé campaign. It is a graphic and truthful account of the Big Hole fight, and of the events leading up to it, and must prove a most valuable contribution to the history of our Indian wars.

I trust the book will meet with the generous reception it deserves.

Yours truly, CHAS. A. COOLIDGE,
Capt. 7th U. S. Infty.

"It is good to recall from time to time the gallant conduct of our soldiers in the West, and Mr. Shields is to be thanked for refreshing people's memories in regard to this important event."—*New York Times.*

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For those desiring to go to California, through Pueblo, Colorado Springs, and Denver, the Santa Fé Route is also the most desirable, as its own tracks extend from Chicago to all of those cities and connect in union depots with trains of the Denver & Rio Grande and other lines west from the cities named.

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# FISHING AND SHOOTING

• • • ON THE • • •

# Canadian Pacific

## RAILWAY.

Beyond all dispute the very finest territory now available to the sportsman and angler is in Canada, and the cream of it is in the region contiguous to the several lines of the Canadian Pacific Railway. This is owing to the fact that much of this great country has only been rendered accessible to sportsmen recently, and game and fish are therefore as plentiful as when their haunts were known but to the Indians and a few trappers. Those unacquainted with sport in Canada can not do better than test the surprising resources of the Dominion, for it furnishes a delightful field for lovers of gun and rod. There is plenty of game, large and small, and game fish, in many districts, especially at points mentioned herein; and a feature of Canadian sport is, that it is followed amid a charming variety of scenery, showing every gradation of the picturesque, from the pastoral to marvelous mountains of surpassing grandeur. The following brief summary may be consulted with advantage by all planning an outing:

## FISHING.

SALMON visit a few rivers of Nova Scotia, many of the rivers of New Brunswick, and all of the important feeders of the St. Lawrence below the City of Quebec, especially those on the north shore. Many of the rivers of British Columbia swarm with salmon at certain seasons, but the fish refuse the fly. SEA TROUT are plentiful all along the Atlantic seaboard, running up all the salmon rivers, and many lesser waters, moving for fresh water about July. Sea-trout fishing is a popular sport on the lower St. Lawrence, during July and August, and later. WINNINISH are supposed to be found only in Lake St. John, some 100 miles north of Quebec City. Quebec is reached per Canadian Pacific Railway, and thence to Lake St. John via Q. & L. St. J. Ry., many anglers returning by way of the Saguenay River to Quebec. BROOK TROUT are abundant at many points, among the best being the Nepigon, Steel, and adjacent rivers on the north shore of Lake Superior; the tributaries of the Ottawa River near the towns of Pembroke and Mattawa; the numerous small streams and lakes on the north shore of the St. Lawrence between Montreal and Quebec; the Batiscan River, Lac Edouard, and their feeders, along the Q. & L. St. J. Ry., and the region about Lake Megantic, reached per Canadian Pacific Line to the Atlantic,

which also traverses the famous "pond region" of Maine. At any of these points the angler can depend upon getting good sport, heavy fish, and fair accommodation. BLACK BASS and MUSKALLONGE abound in most of the larger lakes and streams of Ontario and Quebec, especially Georgian Bay, Lake St. Clair, the Trent River and lakes north of it, Sharbot Lake, the Rideau Lakes, Lake Nipissing, etc. MOUNTAIN TROUT are plentiful in most of the streams of the Rocky Mountains and the British Columbia ranges. Excellent fly-fishing can be had on the Bow River and its tributaries near Calgary, and also in the Bow, Spray, and Cascade rivers in the Rocky Mountain Park, the headquarters being Banff Springs Hotel.

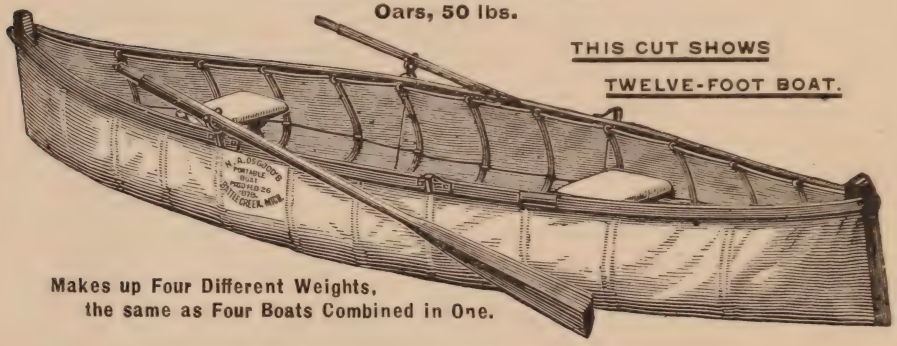
## SHOOTING.

Nova Scotia has a few moose, caribou, and bear; plenty of grouse, geese, duck, etc., and very good snipe, woodcock, and plover shooting. New Brunswick is better for large game; moose, caribou, and bear being fairly plentiful, and grouse abundant. In the Province of Quebec, moose, caribou, and bear are yet abundant, especially north of Quebec City and in the region of Lake Megantic, where red deer also abound. Grouse, snipe, woodcock, and waterfowl are also plentiful during the season. The Province of Ontario is excellent for mixed shooting. Moose, caribou, deer, bear, and grouse are found in the central and northern portions. The best point for moose is in the vicinity of the Mattawa River, the Town of Mattawa being the outfitting point. Caribou are common on the north shore of Superior. In the western part of the province are found wild turkeys, quails, ducks and other waterfowl, grouse, snipe, woodcock, etc., the last three being also generally distributed. In Manitoba and the Nor'west Territories are some of the finest shooting grounds now known, the game-list comprising moose and deer (abundant), caribou and elk (not so numerous); bear (common); antelope (numerous in the Territories, about Medicine Hat, Swift Current, Cypress Hills, etc.); and any number of waterfowl, prairie chickens, grouse, snipe, plover, etc. The Province of British Columbia is a paradise for the adventurous Nimrod, the mountain game comprising elk, deer; grizzly, cinnamon, and black bear; mountain sheep and goats; panther, lynx, and many kinds of feathered game. Caribou are also found in the Selkirk Mountains in great herds. Vancouver Island is noted for bear and deer, and grouse and quail shooting there is good. The English pheasant has also been acclimatized and affords capital sport. British Columbia is the country of countries for big game and varied adventure.

From these brief notes an idea may be gleaned of the splendid resources of Canada, and those contemplating a fishing or shooting trip can obtain full information from books issued by the Canadian Pacific Railway Company on the subject of sport along its lines, which cover the ground thoroughly and will be found useful and reliable guides.

# OSGOOD'S
# Folding Canvas Boat.

**Weight for Trout Fishing, with Stretcher, Side-boards, and Paddle, 25 lbs. With Stretcher, Side-boards, Gunwale, and Paddle, 32 lbs. With Stretcher, Side-boards, Gunwale, Stools, and Oars, 40 lbs. With Bottom-board, Side-boards, Gunwale, Stools, and Oars, 50 lbs.**



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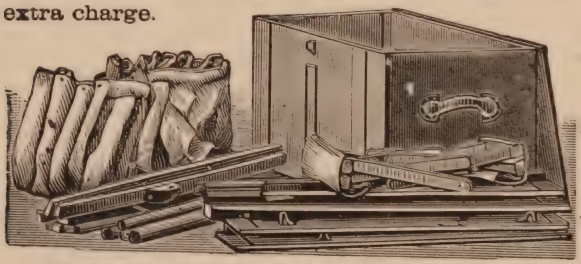
TWELVE-FOOT BOAT.

**Makes up Four Different Weights, the same as Four Boats Combined in One.**

The Best! The Safest! The Lightest! The Steadiest! The Stanchest and Most Durable! Impossible to Tip it Over by Rocking! Easy to Row! Safest and Best Hunting and Fishing Boat Made! Oars and Paddle are jointed, and packed in Chest, with Boat, without extra charge.



SIZE OF CHEST,
38 INCHES LONG,
17 INCHES WIDE,
18 INCHES DEEP

The above is a view of the Boat in its compact form, showing Boat folded, Bottom-board, Camp-stools, Gunwale, Stretcher, and Packing Chest. Oars and Paddle are jointed and packed, with Boat, in Chest.

**Invented and Manufactured by**

## N. A. OSGOOD, BATTLE CREEK, MICH.

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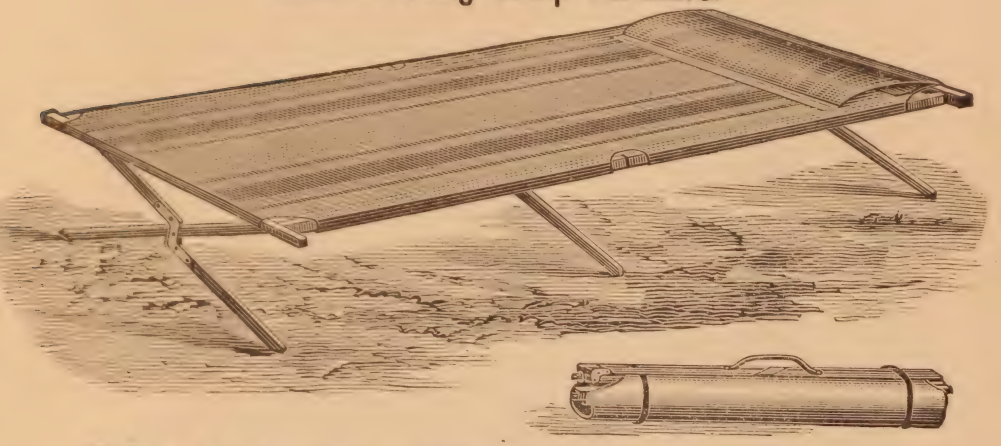
## A Sportsman invites your attention to the Gold Medal Folding Camp Furniture.



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[MENTION THIS BOOK.]

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BUCKET COMPLETE.

## RUDOLPH'S CELEBRATED FLOATING MINNOW BUCKETS.

(Patented July 15, 1884.)

### THE ORIGINAL AND ONLY.

New Pattern.

**NOISELESS.** The handiest, lightest and most complete Minnow Bucket ever put on the market. Will not sink. Free circulation of air and water. Attracts the fish to it, *thereby making good fishing around the bucket.* No loss of bucket or bait should you drop it overboard. When you arrive at the lake, drop the inside bucket in the water, where it will remain on the surface; the waterproof wire making it so open that it affords full flow of fresh water all the time, bringing to your minnows the insect food upon which they exist, as well as attracting other fish to it.

| | 6 | 8 | 10 | 13 | Quart. |
|---|---|---|---|---|---|
| Per Doz..... | $17 60 | 20 80 | 23 15 | 25 24 | |

Inside Buckets are made of strong Galvanized Wire Cloth.

INSIDE BUCKET.

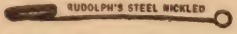
## RUDOLPH'S PATENT FLOATING FISH DECOYS.

The Decoy is just the thing claimed to be. It is made of strong, waterproofed Galvanized Wire, with a float attached to Lid to prevent it sinking. Put a number of fresh minnows in the Decoy, then put it in a stream or lake of fresh water, keep quiet for a while, and if there is any fish within 50 feet of it on either side of the Decoy, they will see the minnows through the clear water and gather around it, when you want to drop your hook with a bait on it in their midst, and you are sure of a bite immediately. This is an absolute certainty. You must, of course, proceed quietly, we don't say it will attract fish where there are none.

You will find it very convenient to put out several Decoys, at least two, so that while you are fishing around one it is quiet at the other. These Decoys can be sunk to any depth by placing weight inside of Decoy.

Price, each..... $1 00

## Rudolph's Steel Nickeled Fish Hook Extractor and Fish Stringer.




**RUDOLPH'S HOOK EXTRACTOR.** Per doz., $2 30

To extract a hook out of the Fish's mouth or belly, you simply pass the line through the slot in the tube, then run the Extractor down the line until it will go no further, let the hook drop into the notch, then pry it out the way it went in; if the hook is held tight by a piece of flesh or muscle, a couple of turns of the Extractor will cut it loose. Lift hook and line gently out to avoid hooks catching again. You will find them very handy.

## RUDOLPH'S POPULAR WEATHER PROOF OIL

For rendering boots and shoes waterproof, excellent, prepared especially for that purpose.

| | ½ pt. | pt. | qts. |
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| Per Doz. | $3 00 | 9 00 | 13 50 |

## RUDOLPH'S FLOATING LIVE NET.

Pat. July 15, 1884.

WHEN NOT IN USE.

Rudolph's Floating Live Net.

It is designed to furnish the angler with an instrument for keeping his fish alive, fresh and within reach; impossible for them to escape, and if left over night in the water they are as fresh in the morning as when caught. When shut it is very portable, and about as thick as your hand.

| | 10 in. | 12 in. | 14 in. |
|---|---|---|---|
| Price, each, | $1 50 | 1 65 | 1 80 |

WHEN IN USE.

## RUDOLPH'S FLOATING MINNOW POCKET.

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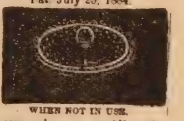


WHEN NOT IN USE.

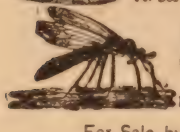
When several ladies and gentlemen go fishing together they may provide themselves with a Floating Minnow Pocket each, so that when they arrive at the fishing grounds, each may have their own minnows, avoiding the necessity of more than one minnow bucket in the party. When not in use, are so small they will go in an ordinary coat pocket, and no thicker than your hand. Price..... $1 25

### Rudolph's Popular Wood Polish

Works a wonderful effect in brightening up and renewing the appearance of your fishing rod as well as forming a waterproof coating..... Per Doz. $3 00

### Rudolph's Popular Soft Metal Polish.

For brightening up brass, German silver and plated ware, without scratching the highly polished surface. Per Doz. $2 50



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Positively keeps off Flies, Gnats, Mosquitoes, and heals the bite, stops the itching, prevents sunburn, heals and prevents the smarting.

Per Doz..... $2 50

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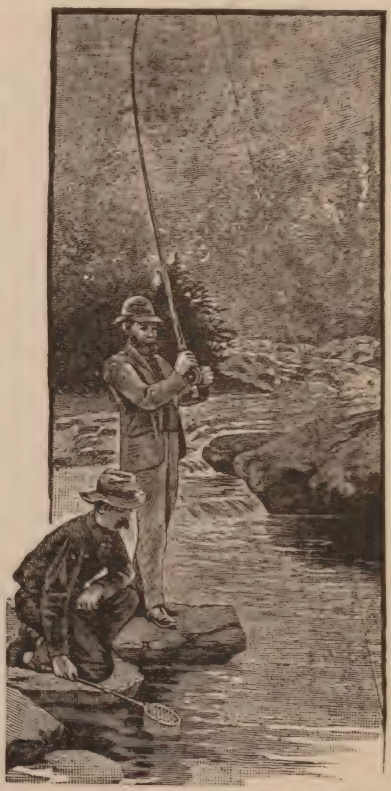

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